

#### ANNUAL GROUP REPORT

# 2014

**IMPETUS FOR GROWTH** 

# THAT'S SOLARWORLD \*\*\*

Harnessing the unlimited power of the sun for a sustainable energy supply around the world – this is the **vision** that drives us.

With a **commitment to innovation** and **pioneering spirit**, SolarWorld AG went public back in 1999. Within a few years, the company grew to become an **internationally recognized solar group**. Having started out merely as a dealer, SolarWorld established itself as a manufacturer of **high-quality solar technology** and earned its customers' trust even during difficult times for the industry.

Today, SolarWorld stands out in the solar market by offering clear **value propositions** to its customers. With **sophisticated technology** made in Germany and the United States, SolarWorld is the obvious choice for **quality-conscious customers** around the world.

Acting on strong **conviction**, SolarWorld defines technology standards for the industry, creating **REAL VALUE** as a result. This is how we set the course for further **growth** – as a major Western solar group with a promising future.



## 2014 A YEAR OF MILESTONES

We made SolarWorld **strong again** and fit for the future.

#### Financial restructuring

program completed

Qatar Solar S.P.C. secured as a **new investor** 

**Production capacities** acquired from Bosch Solar Energy AG

**Processes** streamlined and costs cut further, boosting **competitiveness**.

Positioning in worldwide solar market strengthened under "SolarWorld – REAL VALUE"

Vital **impetus** for strong growth and a return to profitability

2014 ►►► Impetus for future growth

# SOLARWORLD GROWS FASTER THAN THE GLOBAL SOLAR MARKET %

increase in shipments

# SOLARWORLD SECURES NEW INVESTORS

FEBRUARY 2014 --- Strong partners signal trust

Investor from the Emirate of Qatar comes on board as a new anchor shareholder in SolarWorld AG with a stake of 29% and provides a € 50 million line of credit.

### FINANCIAL RESTRUCTURING

# SUCCESSFULLY

### COMPLETED

FEBRUARY 2014 ►►► Solid foundation built

SolarWorld emerges from the solar industry crisis as the largest manufacturer in Europe and America.



### **REAL VALUE**

JUNE 2014 --- Positioning in international competition

With its REAL VALUE brand essence, SolarWorld further differentiates itself from the competition. REAL VALUE is based on authentic and lasting values and makes benefits to customers clearly identifiable all over the world.



MARCH 2014 ►►► Tailwinds for robust growth

# BOSCH SOLAR PLANT BECOMES PART OF THE GROUP

SolarWorld takes over cell and module manufacturing facilities from quality manufacturer Bosch Solar Energy AG in the Thuringian town of Arnstadt, Germany and gains a third production site.

### **DESIGNED FOR THE** UTURE



#### JUNE 2014 --- Creating value for customers

Solar power storage, intelligent load management and independence from energy providers – these are the future. At Intersolar Europe in Munich, SolarWorld presents a new complete system with lithium-ion battery storage: SunPac LiOn.



### JUNE 2014 FFF Fostering commitment AUTHENTIC FOCUS ON SUSTAINABILITY

The 2014 SolarWorld Einstein Award goes to Mali. This award for pioneering efforts in renewable energies is presented to Ibrahim Togala. An engineer and businessman, he works to promote solar power in West Africa – quite often as a partner in SolarWorld's Solar2World program.

AUGUST 2014 ►►► Decades of experience

### STABILITY...

Our Freiberg solar site celebrates its 20th anniversary.

1994
70
MW
global market

for photovoltaics

45,000 MW

global market for photovoltaics

### ...AND CHANGE

OCTOBER 2014 --- Greater efficiency and profitability

The solar market grows rapidly and so does SolarWorld. Synergy effects should boost our competitiveness. In July 2014, our production subsidiaries in Freiberg merge into one company. U.S. activities are grouped together in Hillsboro, Oregon, and as SolarWorld Americas Inc., from October 2014.

# RETURN TO COMPETITION DECEMBER 2014 PDD Boosting the solar industry

The U.S. Department of Commerce confirms import duties on solar products from China and Taiwan, as U.S. authorities take further steps against illegal trade practices. Domestic manufacturers such as Solar-World have a fair opportunity again.

# AMERICAN MARKET GROWING KEEPS

OCTOBER 2014 --- Responding to demand stimulus

SolarWorld announces investments in new production capacities at its Hillsboro site.





# T2014 IMPETUS

FOR GROWTH 2015+ \*\*\*

## **GROWTH**



### WITH A CLEAR VALUE PROPOSITION

Supply for the mass solar market comes from Asia. Yet, for an investment product such as a solar power system, long-term criteria including flawless quality, ruggedness and stability in the top performance class are increasingly important to customers. It is in this quality segment that SolarWorld has positioned itself — credibly and with good prospects — as the only remaining major solar manufacturer in Europe and America.

Supported by proven quality and trust in the SolarWorld brand, the group has established close ties with its customers. The result is that despite past market turbulence, about 80 percent of European customers actively recommend SolarWorld to others.

**SOLARWORLD WANTS TO CAPITALIZE ON THIS BRAND ENTHUSIASM.** The group's goal in 2015 is to grow faster than the market. SolarWorld creates value for its customers, clearly differentiating itself from bulk-produced solar panels that are available worldwide.

SolarWorld intends to continue substantially expanding its market share in the residential and commercial rooftop systems segment. It will offer an excellent range of products directly matched to specific customer needs in the markets. SolarWorld is distinctive in combining manufacturing expertise with know-how as a provider of intelligent solar power solutions. During product development, the group thinks in terms of system and customer needs. The result is smart building technology with solar power systems that deliver robustness and high performance in equal measure.

Large solar markets where customers especially value product and service quality are the United States, Japan and Europe. SolarWorld intends to carve out its global growth in these markets. With rising production capacities, technological progress, forward-looking system solutions, domestic presences and close ties to customers, SolarWorld is taking the next steps toward returning to profitable growth in 2015 and beyond.

Global demand for solar power is rising fast. According to the International Energy Agency, solar energy will be the main source of electricity in the future. As the largest solar manufacturer in the West, SolarWorld intends to take advantage of growth opportunities.

#### **2015 IN FIGURES**

+20 %	GROWTH EXPECTED IN THE GLOBAL SOLAR MARKET IN 2015
+ <b>25</b> %	SHIPMENTS GROWTH PLANNED BY SOLARWORLD TO > 1 GW
<pre>&gt;50 %</pre>	OF SOLARWORLD'S TOTAL SHIPMENTS EXPECTED IN AMERICA
<b>1.6</b> GW	PRODUCTION CAPACITY OF SOLAR MODULES PLANNED AT THE END OF 2015
40 VEARS	MANUFACTURING EXPERIENCE

**IN AMERICA (SINCE 1975)** 





In previous acquisitions of solar divisions from big players such as Bayer and Shell – and now Bosch as well – SolarWorld identified potentialities, assessed experience, pooled expertise and made tried-and-tested systems and processes future-proof. SolarWorld products and components are therefore based on mature technology, which has been transformed into made-by-Solar-World quality. This value proposition is unique in the marketplace.

Thanks to this approach, SolarWorld is achieving outstanding success with PERC technology for high-performance cells. The method developed and used by SolarWorld to improve performance combines perfectly with a process acquired from Bosch. The result: Reaching 21.42 percent, Solar-World set a new world record for the efficiency of industrially made PERC solar cells!

Driven by strong core beliefs, SolarWorld's own quality standards go well beyond the norm. As a result, in its own solar panel-testing laboratory, SolarWorld products and materials undergo meticulous and detailed inspection procedures that exceed international norms. While SolarWorld measures its solar modules against real requirements, many competitors only test to the standard.

Not infrequently, SolarWorld's criteria are adopted by external testing institutes some years later. But by then, the company is another step ahead. In this way, SolarWorld challenges the industry, helps set standards and plays a key role in shaping the solar market. For customers, this means quality that withstands the most extreme conditions in real life too. Now, THAT'S REAL VALUE!



# "AN EXTREME ENDURANCE TEST"

**INTERVIEW WITH SEBASTIAN HOPFE,** quality engineer at SolarWorld in Freiberg, Germany and passionate trial biker

An unusual show attracts attention at trade fairs and events: Sebastian Hopfe performs **SPECTACULAR JUMPS** on a trial bike to show what SolarWorld solar power modules can withstand. He knows first-hand that nothing can really go wrong at the show. In this interview, he explains why.

#### So what exactly is a bike trial?

As the word "trial" suggests, it's an attempt to overcome obstacles on the bike. These can be natural barriers like rocks and logs, but we also seek out challenges in front of spectators in an urban setting. It is a professional sport that requires good technique and a high level of physical and mental fitness.

#### What's the idea behind your SolarWorld show?

As a quality engineer at the Freiberg solar module production site, it occurred to me to use the product that I work with every day as a key feature in a bike trial show. Then, I could demonstrate the ruggedness of my products, in a way that creates good publicity.

#### What conditions are the modules exposed to in the trial?

It is an extreme endurance test. Jumping onto the modules subjects them to some pretty strong forces that make the glass-cell laminate flex. The load is comparable to a heavy hailstorm or movement caused by high winds. But I know that the modules can easily take it. At Intersolar Europe in Munich, we did a test with a Sunmodule Protect glass-glass module. Electroluminescence measurements after the show proved that the solar cells came through unscathed.

#### How does SolarWorld guarantee this special resilience?

Our test lab team goes beyond the norms applied by external testing institutes. Our products and materials undergo tests that replicate exposure to extreme conditions over many years. For example, we simulate strong sunshine, biting frost, heavy storms and high snow loads. This is why our customers can be confident that our modules will withstand extreme loads for 30 years — in real life too.

#### What role do you play in this as a quality engineer?

I monitor the entire manufacturing process. That starts with inspecting incoming goods. SolarWorld sets particularly strict qualification criteria for the materials used. Then, we closely inspect the supplied goods one more time. At the end of the process, we use a device called a flasher to measure the module's electrical output. Our readings are especially accurate because we have our equipment spot-checked by TÜV Rheinland. As a result, our customers can count on highly reliable yields.



#### **PROFILE**

Sebastian Hopfe (30) is an industrial engineer from Dresden, who started out in the automotive sector. He came to SolarWorld via his work in the quality field. He has been an avid trial biker for the past 17 years. He and his bike trial partner thrill spectators with professional shows.

## **SOLAR POWER**

#### **AROUND THE CLOCK!**

HOMES ARE GETTING SMART. This isn't about gadgets and gizmos, but about creating an intelligent, independent and renewable energy supply for the future. More and more people are taking steps toward self-sufficiency in their home

**SMART HOME** — a phrase on lots of people's lips, a cutting-edge topic. But what does it really mean? Without doubt, this is one of the most exciting technology trends. Intelligent networking will fundamentally affect the quality of our housing and our quality of life. The market already offers a wide range of technical methods, systems, remote-controlled devices and installations, as well as automated processes.

**SOLARWORLD** is playing a path-breaking role in this market by placing the solar power system at the heart of smart energy usage. As the centerpiece, a solar power system supplies clean electricity from the roof. With a battery storage system, homemade power is available on demand at any time. And an intelligent energy management system makes it possible to optimize the use of solar power. Living in a smart home gives you independence from utilties and rising electricity prices. For many customers, energy self-sufficiency is the key incentive.



**SOLAR SMART HOME** SolarWorld places roof-top solar systems at the heart of smart energy usage. Thanks to storage and intelligent control, solar power is available around the clock. The new app SolarWorld MyHome makes operation a child's play.

FOR SURE, the market for smart buildings will boom. According to a 2014 study by the German Society for Consumer Research, there are more than 26 million potential smart homes in Germany alone. SolarWorld is ahead of the game here and strongly positioned for this growth segment with intelligent products, "made in Germany" and "made in the United States" quality, closeness to the markets and lots of innovative flair attuned to customers' needs. In 2014, SolarWorld added a number of new products to its smart home portfolio, including the SunPac LiOn battery storage system and the MyHome energy management system. Following the launch in Germany, SolarWorld will now extend its offering in stages to markets such as Australia and the United Kingdom. The solar market of the future will be fundamentally transformed. And it is going to be smart!



#### **ABOUT THIS REPORT**

#### FORWARD-LOOKING STATEMENTS

This report may contain forward-looking statements that are subject to risks and uncertainties, many of which relate to factors that are beyond SolarWorld AG's control or its ability to precisely estimate, such as future market and economic development, supply and demand, the behavior of other market participants, the ability to successfully achieve anticipated synergies and the actions of government regulators.

SolarWorld AG has based these forward-looking statements on its current views and assumptions with respect to future events and financial performance. Many factors could cause the actual results, performance or achievements of SolarWorld AG to be materially different from those that may be expressed or implied by such statements. Such factors include those discussed in the Opportunities and Risks Report.

Given these uncertainties, readers are cautioned not to place undue reliance on any forward-looking statements. We do not assume any obligation to update the forward-looking statements contained in this report.

#### **SUSTAINABILITY**

SolarWorld AG has a clear focus on sustainability. The Management Board supports the group's commitment to international standards such as the United Nations Global Compact. With the present report, the Management Board, above all the CEO of SolarWorld AG, declares its willingness to continue this engagement in the future.

The Annual Group Report 2014 describes both financial and non-financial performance (Global Reporting Initiative, G4 In Accordance Comprehensive, audit review by the BDO AG, Wirtschaftsprüfungsgesellschaft). Especially relevant economic, ecological and social topics are explained extensively in the group management report. Due to eco-efficiency, the section "Sustainability in Detail 2014" is only available online at — www.solarworld.de/sustainability

#### **FURTHER INFORMATION**

Rounding differences may occur in the Annual Group Report.



#### 008 LETTER BY THE CHAIRMAN

#### **011 KEY FIGURES AND FACTS\***

- 013 Selected indicators
- 014 Quarterly comparison of the consolidated income statements
- 014 Revenue by region
- 015 Development of key figures in five-year comparison
- 016 Sustainability performance

#### **019 GROUP MANAGEMENT REPORT\***

- 021 General information about the group
- 029 Business report
- 063 Supplementary report

#### **067 GROUP MANAGEMENT REPORT FORECAST\***

- 067 Risk report
- 081 Opportunity report
- 083 Forecast report

#### **091 CORPORATE GOVERNANCE\***

- 093 Corporate Governance
- 104 Report by the Supervisory Board 2014

#### 111 CONSOLIDATED FINANCIAL STATEMENTS\*

- 111 Consolidated income statement
- 112 Statement of consolidated comprehensive result
- 113 Consolidated balance sheet
- 114 Consolidated statement of changes in equity
- 115 Consolidated cash flow statement
- 116 Consolidated notes
- 169 Audit opinion
- 170 Responsibility statement

#### 171 SERVICE

- 173 Glossary
- 178 Acronyms and abbreviations
- 180 Financial and event calendar 2015



Management Board of SolarWorld AG (from left to right): Jürgen Stein (CPO): product management, product development, quality management, purchasing and supply chain; Philipp Koecke (CFO): finance, controlling, accounting and investor relations; Dr.-Ing. E. h. Frank Asbeck (CEO): strategic group development, production, technology development as well as public relations including energy and environmental policy; Colette Rückert-Hennen (CIPBO): information technology, human resources, brand management, marketing, sustainability and compliance; Frank Henn (CSO): international sales including the areas after sales service, technical support and customer service

# LETTER BY THE CHAIRMAN

### DEAR CUSTOMERS, SHAREHOLDERS, NOTEHOLDERS, BUSINESS PARTNERS AND EMPLOYEES OF SOLARWORLD AG,

In February 2014, the completion of our financial restructuring allowed us to make a new start. This new start was based on confidence in SolarWorld seizing the opportunity for a successful future. Today, after just over a year of "SolarWorld 2.0", we have taken courageous steps forward. We have made considerable progress in leading the group sustainably back to the path of growth and profitability.

The year 2014 brought a series of key business events. Our strategic acquisition of solar activities from Bosch in Arnstadt, Germany, nearly doubled our production capacities and further reinforced our positioning as a leading quality provider. We also established a new, solid foundation for our supply of raw materials, together with our suppliers. Our shipments gained strong momentum in 2014, and we exceeded our high targets by a wide margin. Shipments were up 55 percent compared with 2013, against our expected 40 percent. Things went particularly well for us in the United States, France, the United Kingdom and Japan. Even in the declining German solar market, we turned in a solid performance and increased our market share.

### "EBITDA FOR 2014 MOVED BACK INTO POSITIVE TERRITORY, IN LINE WITH OUR FORECAST."

Consolidated revenue in 2014 increased by more than one quarter to € 573 million. We did not achieve our original, highly ambitious target here, primarily because of unforeseeable shifts in the product mix in our shipments. Moreover, we did not realize any new large-scale turnkey projects in 2014. This decision was carefully considered by my Management Board colleagues and me, to avert financial risks and avoid tying up cash. This decision gave us space to develop new avenues in our supply business, also with regard to major new international customers.

These numerous positive business events are reflected in our operating earnings before interest, taxes, depreciation and amortization (EBITDA), which improved significantly to € +109 million in 2014 compared with € -147 million in 2013, the year of restructuring. But even excluding one-off effects resulting from the Bosch acquisition in Arnstadt and an impairment loss in connection with renegotiated raw material supply contracts, EBITDA moved back into positive territory at € 1.6 million in 2014, in line with our forecast.

### WE ARE CONFIDENT OF REACHING THE NEXT BIG MILESTONE – OUR OPERATIONAL TURNAROUND – IN 2015.

In 2015, we plan to reach positive groupwide earnings before interest and taxes (EBIT) excluding any one-off effects, i.e. to consummate our operational turnaround. Just as we successfully mastered our financial restructuring, we are confident of reaching the next big milestone – our operational turnaround – in 2015.

Without question, this challenge is a key for 2015. The turnaround involves demanding targets in all areas of the group. For instance, we plan to continue our strong growth and increase our shipments to more than 1 gigawatt for the first time. We intend to achieve more than half of our sales volume in the United States, a market where we can point to a decades-long manufacturing tradition. As with our shipments, we also plan to grow consolidated revenue by at least 25 percent compared with 2014, to more than € 700 million.

#### OUR WAY TO ACHIEVE GROWTH IS A CLEAR CUSTOMER VALUE PROPOSITION.

To achieve continued growth, we will fully utilize and expand our capacities, and – even more importantly – systematically invest in high-performance technology and innovations such as the PERC process. Two weeks ago, marking the first anniversary of SolarWorld Industries Thüringen in Arnstadt, we announced expansion plans for this site. By the end of 2015, our groupwide module capacity will reach about 1.6 gigawatts – a level that enables not only shipment growth but also better economies of scale, to boost our cost competitiveness. Our turnaround in 2015 requires additional operational measures to increase efficiency and cut costs. We will avail ourselves of plenty of remaining scope on this front. We will work continuously to improve our processes and promote the economic success of our business.

As a result, in terms of our growth, we are well equipped to benefit from rapidly growing demand for solar power. High-performance technology and complete solar power systems will form the pillars of our strategy over the years ahead. Our customers can always expect more from us than from other providers: more output, higher yields, and complete solar power solutions that deliver added value. Our way to achieve growth is a clear customer value proposition.

Another distinction for SolarWorld: We have always encompassed the whole picture. SolarWorld thinks big! We act according to our beliefs, which means that we always consider the lasting impacts of our activities on the environment, society and stakeholders. SolarWorld's horizons extend over decades, not just years. Our U.S. subsidiary's history dates back to 1975. With 40 years of solar experience, we aim to be an important source of inspiration for the industry well into the future.

#### SOLARWORLD THINKS BIG! \*\*

SolarWorld is operating in a highly attractive market that offers enormous opportunities, but which still involves risks. Fair competition and stable regulatory frameworks are essential for the lasting success of photovoltaics as a technology of the future. Here, the support of policymakers is required. As a company, we will continue our critical and active participation in this process.

I thank you all for continuing to support us on our path.

Bonn, March 25, 2015

**Dr.-Ing. E. h. Frank Asbeck**CEO of SolarWorld AG

# KEY FIGURES AND FACTS

- 013 SELECTED INDICATORS
- 014 QUARTERLY COMPARISON OF THE CONSOLIDATED INCOME STATEMENTS
- 014 REVENUE BY REGION
- 015 DEVELOPMENT OF KEY FIGURES IN FIVE-YEAR COMPARISON
- **016 SUSTAINABILITY PERFORMANCE** 
  - 016 Environmental protection
  - 016 Customer and product responsibility
  - 017 Employees
  - 017 Supply chain
  - 018 Compliance and society
  - 018 Innovation

### **SOLARWORLD 2014**

#### **SELECTED INDICATORS**

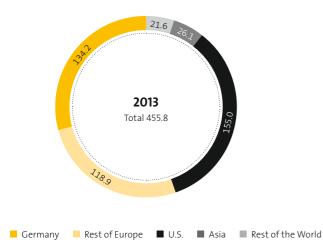
Financial indicators in k€	2014	2013	Change
Revenue	573,382	455,821	117,561
Foreign quota in % of revenue	83.1%	70.6%	12.5 %-points
EBITDA	107,815	-146,787	254,602
EBIT	62,375	-188,664	251,039
EBIT in % of revenue	10.9%	-41.4%	52.3 %-points
Capital employed (key date)*	490,896	403,922	86,974
Consolidated net result	464,164	-228,307	692,470
Consolidated net result in % of revenue	81.0%		131.0 %-points
Total assets	915,341	931,835	-16,494
Equity	238,668	-148,049	386,717
Equity ratio in %	26.1%	-15.9%	42.0 %-points
Cashflow from operating activities	-36,689	17,324	-54,013
Net indebtedness **	272,782	858,475	-585,693
Investments in intangible assets and property, plant and equipment	89,021	22,757	66,264
Employee indicators	2014	2013	Change
Employees (key date)	2,730	2,073	657
of which trainees (key date)	44	50	-6
Personnel costs ratio in %	23.8%	30.8%	-7.0 %-points
Revenue per employee in k€	210	220	-10
EBIT per employee in k€	23	-91	114

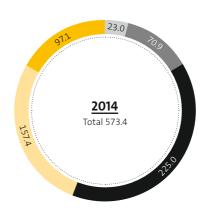
<sup>\*</sup> Intangible assets and property, plant and equipment less accrued investment grants plus net current assets except for current net liquidity \*\* Financial liabilities less liquid funds

#### **QUARTERLY COMPARISON OF THE CONSOLIDATED INCOME STATEMENTS**

in k€	Q1 2014	Q2 2014	Q3 2014	Q4 2014	Q4 2013	Change
Revenue	99,420	128,675	180,823	164,464	110,197	54,267
Inventory change in products	14,387	12,342	-7,664	17,263	-3,326	20,589
Own work capitalized	174	494	141	629	34	594
Other operating income	153,309	27,889	20,899	30,687	19,896	10,791
Cost of materials	-77,108	-98,871	-120,113	-126,846	-78,473	-48,373
Personnel expenses	-30,287	-37,107	-34,695	-36,192	-26,732	-9,459
Amortization and depreciation	-9,776	-10,367	-10,410	-14,887	-9,963	-4,924
Other operating charges	-22,707	-69,539	-33,164	-49,488	-105,317	55,829
Result of operations	127,412	-46,484	-4,183	-14,370	-93,685	79,315
Financial result	535,370	-8,169	-7,718	-9,210	-21,855	12,645
Pre-income tax result	662,782	-54,653	-11,901	-23,580	-115,539	91,960
Taxes on income	-112,651	2,394	3,247	-1,475	22,228	-23,703
Consolidated net result	550,131	-52,258	-8,654	-25,055	-93,312	68,257

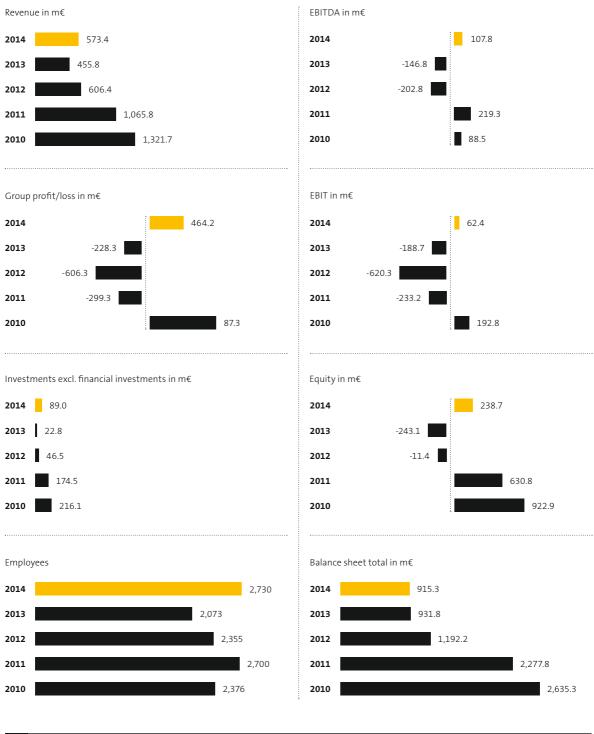
#### **REVENUE BY REGION** IN M €





G 01

#### **DEVELOPMENT OF KEY FIGURES IN FIVE-YEAR COMPARISON**



G 02

### **SUSTAINABILITY PERFORMANCE**

#### **ENVIRONMENTAL PROTECTION**

Name and description	2013	2014	2015
Energy: total energy consumption (in primary GJ)	2,596,389	3,090,778	<u></u>
<b>Water:</b> total water take-out (in m³)	1,168,437		<b>1</b>
Water: waste water discharge (in m³)	1,012,247	1,336,489	1
Emissions: total greenhouse gas emissions (in tCO <sub>2eq</sub> )	95,693	127.021	1
Waste: total production waste (in t)	10,014	23,021	1
<b>Environmental compatibility:</b> share of ISO 14001 certified locations (weighted by average capacity), since 2014 without sales sites in Rest of the World (ROW)	100%	100%	$\leftrightarrow$
Packaging: material (in t)	2,575	2,325	1
Environmental violations: sanctions due to environmental violations	0	0	0

**CUSTOMER AND PRODUCT RESPONSIBILITY** 

Name and description	2013	2014	2015
<b>Customer satisfaction with SolarWorld:</b> share of satisfied customers among all respondents, aggregate number (trade: wholesalers, Certified partners)	94%	86%	
Earnings from new products with life cycles of less than 12 months	60%	53%	$\leftarrow \rightarrow$
Customer loyalty: Share of new customers (module and system customers)	39% (direct customers), 35% (Certified partners)	30% (direct customers), 18% (Certified partners)	$\leftarrow \rightarrow$
Customer loyalty: market share	2%	2%	<b></b>
Sanctions due to product and service conditions	0	0	0

#### **EMPLOYEES**

Name and description	2013	2014	201
Employment type: share of temporary employees (full-time equivalents)	11%	20%	$\stackrel{-}{\longleftrightarrow}$
Attrition rate: share of employees leaving the company per year	17%	10%	$\leftarrow \rightarrow$
Collective bargaining agreements: share of employees covered by collective bargaining agreements	54%	67%	$\leftarrow \rightarrow$
Training and professional development/qualification: average training expenditure per employee (in €)	200.17	180.14	$\leftrightarrow$
Age structure of the workforce (persons)	≤30:19%, 31-40:32%, 41-50:29%, >50:21%	≤30:16%, 31-40:31%, 41-50:30%, >50:23%	$\leftarrow \rightarrow$
<b>Absentee rate:</b> total missed worktime due to sick leave/total planned working time in the calendar year	4.4%	5.4%	$\leftrightarrow$
Accident rate (per 1000 employees, incl. temporary workers)	12.5	13.2	$\downarrow$
Relocation of work places due to restructuring: total costs of relocation (in k€) including compensation payments, severance pay, outplacement, recruitments, training, consulting	112	294	$\longleftrightarrow$
<b>Diversity:</b> share of women in total workforce	23%	25%	$\leftarrow \rightarrow$
<b>Diversity:</b> share of women in management positions (without Management Board and managing directors)	19%	17%	$\leftrightarrow$
Compensation: total amount of all bonus payments (in m€). We do not grant stock options.	12	30	$\uparrow$
Discrimination: number of documented incidents	0	1	0

#### **SUPPLY CHAIN**

Name and description	2013	2014	2015
Certification: ISO 9001 certification of suppliers (direct material)	96%	98%	$\stackrel{\longleftarrow}{\longleftrightarrow}$
Certification: ISO 14001 certification of suppliers (direct material)	79%	80%	$\leftarrow \rightarrow$
<b>Production loss:</b> difference between planned and actual production due to material bottlenecks	0%	0%	$\leftarrow \rightarrow$
<b>Production loss:</b> monetary effects of production loss due to material bottlenecks (in €)	0	0	$\leftarrow \rightarrow$

#### **COMPLIANCE AND SOCIETY**

Name and description	2013	2014	2015
Effects of subsidies: Share of business activity in markets with feed-in tariffs or regulated pricing.  The sales share in markets without feed-in tariff or regulated pricing is still below 1%.  Benchmarks: heavily subsidised markets such as nuclear energy, German coal, EU agricultural market	100%	100%	$\longleftrightarrow$
Governmental financial assistance: investment grants and research grants (in k€)	7,205	15,661	$\leftarrow \rightarrow$
Donations to political parties (in k€)	0	0	0
Other donations (in k€)	101	119	$\leftarrow \rightarrow$
Regional development: Solar2World (delivered kWp)	146	120	<b>^</b>
<b>Corruption:</b> share of business activity in regions with a corruption index (Transparency International) of less than 60	45%	13%	$\leftarrow \rightarrow$
Ascertained corruption incidents	0	0	0

T 07

#### INNOVATION

Name and description	2013	2014	2015
Innovation: total R&D expenditures (in m€)	27	29	$\stackrel{-}{\longleftrightarrow}$
Innovation: total investment in research on ESG relevant aspects.  Our entire business (solar energy) is ESG relevant.	100%	100%	100%
Number of inventions filed in the last 12 months	59	53	1

# GROUP MANAGEMENT REPORT

#### 019 GENERAL INFORMATION ABOUT THE GROUP

- 021 SolarWorld AG at a glance
- 024 Goals and strategy
- 026 Corporate management and control
- 028 Disclosure relevant for takeovers
- 028 Remuneration of the Management Board and Supervisory Board

#### **029 BUSINESS REPORT**

- 029 The stock
- 032 Major business events
- 033 Financial restructuring
- 034 The market
- 037 Trade
- 042 Production
- 044 Global supply chain
- 045 Innovation report
- 049 Environmental commitment
- 052 Employees
- 055 Economic position 2014

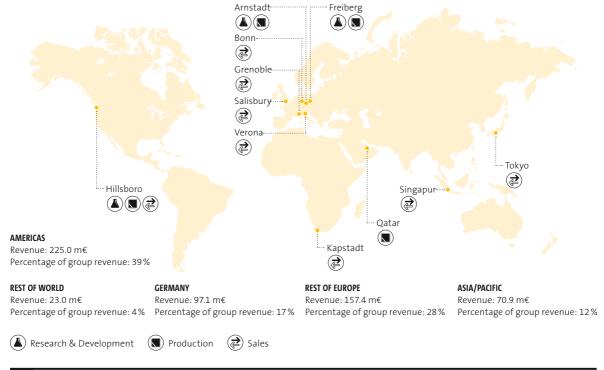
#### **063 SUPPLEMENTARY REPORT**

- 063 Disclosure and impact of events of particular importance
- O64 Overall statement by the Management Board on the economic position at the time of the report

# GENERAL INFORMATION ABOUT THE GROUP

#### **SOLARWORLD AG AT A GLANCE**

#### SOLARWORLD WORLDWIDE



#### G 03

#### **COMPANY PROFILE**

SolarWorld Aktiengesellschaft (AG) is based in Bonn, Germany and is the holding company for the SolarWorld group. The company is the largest manufacturer of solar power products outside of Asia, and operates manufacturing facilities at Freiberg and Arnstadt (Germany) as well as Hillsboro (United States). SolarWorld is active at all stages

of the solar value chain, and also conducts its own research and development. ► <u>Stages of the value chain and Segment</u> structure – p. 022

SolarWorld's customers are served by a global distribution network. Our largest sales markets in 2014 were the United States, France, Germany, the United Kingdom and Japan.

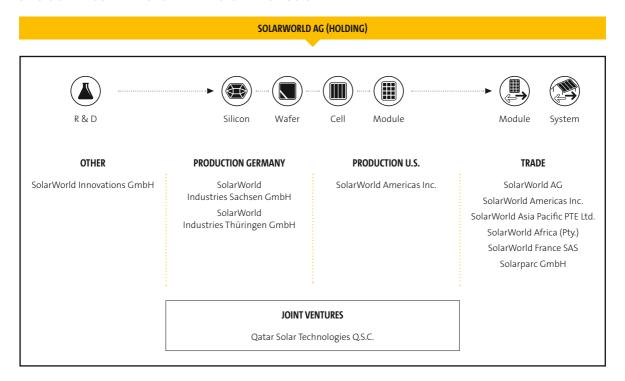
► Trade – p. 037

**PRODUCTS AND SERVICES.** SolarWorld offers solar power solutions with a clear value proposition to customers throughout the world. The group offers a wide portfolio of products that enable private and commercial users to generate electricity cleanly, efficiently and profitably from the power of the sun. Our solar power solutions include multicrystalline and monocrystalline solar modules as well as complete solar power systems of any size, which incorporate SolarWorld modules and system components such as inverters, frames and increasingly often also storage systems. We sell products for both on-grid and off-grid applications. Furthermore, new developments in system technology allow customers to store self-generated solar electricity from our solar power systems and increase their self-consumption ratio with intelligent controls. We also sell monocrystalline and multicrystalline solar wafers and cells that are not processed in our own production as components to customers in the international solar industry.

Moreover, SolarWorld provides services for investors such as project planning and the construction and operation of large-scale solar plants. In commercial and technical management, we possess proven expertise through our subsidiary Solarparc GmbH.

**DEVELOPMENT OF THE COMPANY SINCE ITS FORMATION.** SolarWorld AG was founded in 1998 by Dr.-Ing. E. h. Frank Asbeck. SolarWorld AG went public in 1999 as one of the first solar companies worldwide to do so. The stock is part of the Prime Standard on the Frankfurt Stock Exchange. In just a few years after going public, the company grew from a dealer to an international group, which successfully made use of rising demand to achieve robust growth and establish itself as the strong SolarWorld brand.

#### STAGES OF THE SOLAR VALUE CHAIN AND SEGMENT STRUCTURE



G 04

From 2011, the international solar market began to suffer from excess capacity. Cut-throat competition worsened, leading to a strong drop in prices. In 2012, the resulting crisis in the international solar industry hit us too. In the following year, SolarWorld AG required extensive financial restructuring, which was successfully completed in early 2014. At the same time, we introduced numerous operational measures to enhance our competitiveness. SolarWorld is back on a solid financial footing following the completion of our financial restructuring. From this foundation, in 2014 we benefited from strong demand in the international solar markets and — with an additional boost resulting from the acquisition of further production capacities at our Arnstadt site — we returned to growth.

GROUP STRUCTURE. On the cut-off date, December 31, 2014, the SolarWorld group comprised a total of 29 (December 31, 2013: 52) companies. Thus, the number of subsidiaries decreased significantly, compared with the previous year. This is due primarily to the sale of the photovoltaic portfolio held by our subsidiary Solarparc GmbH (formerly Solarparc AG). In addition, at our Freiberg site in Germany, we merged our three production companies into one company. In the United States, we grouped together our activities in one company by the name of SolarWorld Americas Inc. ► Note 2.3.3 Group structure − p. 126

**SEGMENT STRUCTURE.** As in past years, SolarWorld's operational business was divided into four segments in 2014: "Production Germany", "Production U.S.", "Trade" and "Other". These provide the structure for our internal organization, management and reporting.

The "Production Germany" and "Production U.S." segments each comprise the regionally coherent and fully integrated production activities. In 2014, the business activities of Solar-World Industries Thüringen GmbH, which in March acquired cell and module production facilities from Bosch Solar Energy AG in Arnstadt, Thuringia, were integrated into the "Production Germany" segment.

The "Trade" segment covers international sales of cells, modules, kits and large-scale plants. It also includes proceeds

generated by our subsidiary Solarparc GmbH from electricity sales, project planning and the sale and operation of solar power plants.

Business activities where the financial impact is not or is no longer crucial to the assets, financial position and earnings of the group are included in the "Other" segment.

### **POSITIONING**

STRATEGIC BRAND ESSENCE REAL VALUE. In the 2014 fiscal year, SolarWorld reformulated its strategic brand essence, focusing on what has always been part of the company's identity: offering real value. As a global group, we decided to make REAL VALUE part of our global brand identity. Starting with this brand essence, we developed an integrated international brand strategy for the first time. REAL VALUE is our performance promise that makes the SolarWorld brand strong and generates confidence among customers and partners. REAL VALUE is a self-imposed quality standard, by which we measure our processes and products. It builds on four core values that represent SolarWorld. Tests and surveys among partners and customers around the world demonstrate the reliability and credibility of the following four values of the SolarWorld brand:

- · Proven quality
- Fulfilling customers' needs with leading solutions
- A responsible partner you can trust worldwide
- · Authentic focus on sustainability

This unique group of values sets SolarWorld apart from its competitors. ► *Marketing* – *p. 040* 

**STRENGTH IN THE QUALITY SEGMENT.** The prospects of success for SolarWorld AG lie primarily in the quality segment of the international solar markets. As the last large solar manufacturer with production facilities in Germany and the United States, the company is the natural partner for customers who place value on "made in Germany" and "made in the United States". By focusing on the REAL VALUE brand essence, we enhance our positioning as a quality provider.

**SYSTEMS.** Thanks to a diversified, globally distributed customer base, the company is represented in all mature and growing solar markets except for China. Particularly in the private roof-mounted systems segment, SolarWorld has achieved a high market share. This segment has proven to be significantly more stable in the face of changes to reg-

ulatory solar power subsidies. In addition, there is greater quality and brand awareness in this segment, which benefits SolarWorld. In markets such as Germany, the United Kingdom and the United States, wev intend to position ourselves more effectively as a provider of complete solar power systems. ► *Trade* − *p.037* 

### **GOALS AND STRATEGY**

### GOALS

Starting from the vision of building a solar world, SolarWorld is pursuing the goal of developing its business internationally, profitably and sustainably. To return to profitability as a company, we are doing everything in our power to enhance value for customers, achieve growth in the solar markets and at the same time significantly improve the efficiency of our processes. A lasting return to profitability will increase the value of the company.

In the years ahead, we are targeting strong growth in shipments and consolidated revenue. We also want to return to a positive operating result (EBIT) in 2015. ► Expected development of revenue and profit or loss – p. 089

### **GROUP STRATEGY**

In 2014, we continued our strategy:

Thanks to our customer-oriented solar power solutions, we offer real added value and are international leaders in technology.

 We provide solar power solutions for our markets that satisfy all customer demands and market requirements.
 This claim also applies to solar wafers and cells in our component business. ► Marketing – p.040

- SolarWorld is to become the best-known international solar brand for the volume segment, with the highest quality standards. ► Marketing p. 040
- Our top-level operational performance creates the basis for a profitable and sustainable company. ► <u>Operational</u> measures – p. 025

Our employees are essential for the successful implementation of our strategy at all levels in the group. The "green idea" of utilizing the inexhaustible power of the sun for global resource conservation and climate protection is deeply rooted in the group's values and is highly motivating for our employees in terms of dedication to achieving the group's goals.

Five core themes derived from our strategy form the focus of a groupwide Change Program, which our employees have been actively involved in since 2012. We will continue to pursue our strategy in 2015 and focus on these core themes:

**CUSTOMER FOCUS.** Customer demands should drive the entire business and all processes within SolarWorld. Product differentiation and comprehensive customer service create added value for the customer. ► <u>Marketing − p. 040</u>

**PERFORMANCE AND INNOVATION.** SolarWorld secures its market leadership in module performance. The acquisition of cell and module production facilities from Bosch Solar Energy AG has strengthened this position. With innovative products, Solar-World aims first and foremost to be a trendsetter in offering complete solar power solutions that integrate solar modules and system technology. This way, we enhance our customer value proposition. ► *Innovation report* − *p. 045* 

**SALES GROWTH.** SolarWorld aims to substantially increase shipments in its international markets. The module business is the main driver for growth. In markets such as Germany, the United States and the United Kingdom, we want to increase the total sales of complete solar power solutions. ightharpoonup Trade - p.037

**COST EFFICIENCY AND PROFITABILITY.** SolarWorld plans to make further cost reductions in all organizational units, at all stages of the value chain and at all locations, aiming at optimizing cash flow and turn operating results (EBIT) back into positive territory again. ► Forecast report – p. 083

**DEVELOPMENT OF THE ORGANIZATION.** SolarWorld's international organizational units will grow closer together and the group as a whole will merge to form one global entity. This will make SolarWorld's organizational structure leaner.

### **OPERATIONAL MEASURES**

To achieve our group's objectives, we will implement further operational measures in 2015. Mainly during the 2013 fiscal year, SolarWorld carried out an extensive operational restructuring program in parallel to its financial restructuring activities. The aim was to cut fixed costs in all relevant areas, to reduce variable costs in production and sales as well as to boost efficiency. ► Annual Group Report 2013, Strategy and action − p. 28 et seq.

The restructuring program was continued as planned and produced the expected results. In 2014, we continued the operational measures and initiated further steps. For the most part, these were complex structural changes. Employees were involved in their implementation as part of our Change Program. ► Employees − p. 052

Many activities are continuing in 2015:

- United States: Since the consolidation of production and sales at one site, which began at the end of 2013, our primary goal has been to realign sales and logistics and integrate them more closely into our production processes. This measure had already started producing good results in 2014.
- Germany: Since production lines were acquired from Bosch Solar Energy AG in March 2014, the objective has been to integrate the site into the SolarWorld group both in terms of its processes and culturally. In addition, at our Freiberg site, we merged the three previous production companies to form SolarWorld Industries Sachsen GmbH in July 2014.
  - ► <u>Production p. 042</u> Furthermore, at all our sites in Germany, we want to initiate additional steps to harmonize processes more effectively groupwide to reduce costs.
- Global: Strategic core areas in the group have been moved into global organizational structures. Purchasing, IT, product management and other areas of responsibility are now managed by international teams. In addition, we are launching cross-site and groupwide projects increasingly frequently. We intend to continue along the path of internationalization. Moreover, in 2015, SolarWorld will roll out a new groupwide enterprise resource planning (ERP) system to raise process efficiency across all sites and offer our customers even better and faster service. Extensive preparations were under way for this change at all sites in 2014. ► Performance-related opportunities p. 082

These measures are vitally important in respect to achieving our operational goals and our long-term competitiveness.

### CORPORATE MANAGEMENT AND CONTROL

**STRATEGIC GROUP MANAGEMENT.** The Management Board determines the group's goals annualy. These then have to be approved by the Supervisory Board. With these goals in mind, corporate controlling sets up the business planning for the group. This planning is structured into requirements for individual departments, which are then translated into specific, measurable targets as part of operational budget planning.

To produce, manage and control operational planning for the group, we primarily refer to the financial performance indicators revenue, EBITDA (earnings before interest, taxes, depreciation and amortization) and EBIT (earnings before interest and taxes). Corporate controlling continuously monitors these and other department-specific indicators in a target-actual comparison and produces a monthly report for the Management Board. This report analyzes business trends by regions and identifies gaps in a target-actual comparison.

In the "Trade" segment, we produce a daily summary of shipments, revenue and orders levels. On a monthly basis, a more detailed analysis and target-actual comparisons of shipments and revenue by product groups, regions and customers are produced in standardized form and reported to the Management Board. As a result, we identify trends and seasonal fluctuations in the price and quantity structure at an early stage. Once every year, we also measure customer satisfaction. Here, we rely in part on customer surveys and information obtained from direct dialog with our customers.

In the "Production Germany" and "Production U.S." segments, we monitor trends in costs per unit and per watt, as well as in production output. We pay particular attention to individual cost drivers such as material usage and labor intensity. Non-financial indicators such as productivity figures, employee recruitment and retention and resource consumption supplement the financial control indicators.

Corporate controlling also monitors working capital, cash flow and the results of operational measures to boost efficiency and cut costs. Management Board members maintain constant dialog with each other. Every week they convene for a regular meeting at which they talk about the business situation, discuss opportunities and risks, review target achievement and adjust targets if necessary. In the event of deviations from plan, the Management Board introduces necessary counter-measures in close consultation with the management bodies of group companies. In addition, members of the Board and managing directors of the subsidiaries get together several times a year. At these meetings, the respective regional and market-specific circumstances are taken into account, and further short-to medium-term goals and measures are decided upon.

INTERNAL CONTROL SYSTEM. The internal control system (ICS) in the SolarWorld group includes various mechanisms and has a decentralized structure. Corporate controlling, group accounting and the corporate audit perform oversight control functions. Corporate controlling is responsible for monthly reporting of the segment-based financial indicators and for the risk management system. Financial circumstances are also taken into account here. Group accounting ensures that accounting is uniform and complies with legal requirements and standards as well as the group's internal guidelines and generally accepted accounting principles. ► Internal control and risk management system in relation to the group accounting process – p. 069 Corporate audit pursues an integrated, risk-oriented and systematic approach in its audits. One of its aims is to assess the reliability of the risk management system and internal control system. Corporate audit examines processes in respect of regularity, security, safety and efficiency criteria and compliance with legal requirements and company policies. As an instrument of the Management Board, the corporate audit is organizationally and functionally independent, thus enabling the proper performance of its duties. Corporate audit can autonomously determine the scope of the audit and reporting. If necessary, corporate audit can provide support with the implementation of particular measures.

**COMPLIANCE MANAGEMENT SYSTEM.** SolarWorld's compliance management system is subject to continuous improvement. The compliance committee is an interdepartmental supervisory body which conducts an annual analysis of compliance risks for the group. On this basis, weak points are identified, and risk-reduction measures are worked out with the relevant departments and implemented. Our compliance regulations are also reviewed annually and updated if necessary.

The compliance committee met once each quarter during 2014. The Arnstadt site was integrated into our compliance management system, a local compliance officer was appointed, and executives and employees received risk training. No compliance cases were reported via Solar-World SpeakUp, our whistleblower system, during 2014. Solar-World continued to provide compliance training. This consists of initial training for new employees and yearly refresher courses. Training is compulsory for employees who are exposed to particular compliance risks; training modules are offered to all other employees on an optional basis. In 2014, we released further supplements to the Code of Conduct in the form of work instructions concerning, for instance the use of company communication media, conduct in tenders, and dealing with conflicts of interest.

► Corporate governance report 2014 – p. 093

### **DISCLOSURE RELEVANT FOR TAKEOVERS**

The information pursuant to § 315 (4) German Commercial Code (HGB) can be obtained from the following paragraphs:

**RESTRICTIONS ON TRANSFER.** Under the terms of a shareholder agreement of December 19, 2013, CEO Dr.-Ing. E. h. Frank Asbeck and Solar Holding Beteiligungsgesellschaft mbH, in which he and his family members hold a direct and indirect stake, undertake not to dispose of the 2,904,720 no-parvalue shares acquired from creditors in the course of the financial restructuring and not to enter into any agreements concerning the voting or other rights associated with these shares (§ 315 (4) No. 2 HGB). The defined lock-up period lasts until termination of the shareholder agreement or until repayment by SolarWorld AG of a very substantial part of the financial liabilities, whichever occurs sooner. The shareholder agreement ends with the conclusion of the ordinary Annual General Meeting which decides on fiscal year 2018.

**AMENDMENTS TO THE ARTICLES OF ASSOCIATION AND APPOINTMENT AND DISMISSAL OF MANAGEMENT BOARD MEMBERS.** The provisions concerning the appointment and dismissal of Management Board members as well as amendments to the Articles of Association (§ 315 (4) No. 6 HGB) result from the German Stock Corporation Act (AktG).

**MANAGEMENT BOARD POWERS.** Regarding Management Board powers (§ 315 (4) No. 7 HGB), reference is made to the German Stock Corporation Act. In addition, the following applies:

By resolution of the Annual General Meeting of May 20, 2010, the Management Board was authorized to purchase

treasury shares. In accordance with § 71 (1) No. 8 AktG, the authorization is subject to a fixed term, expires per midnight of May 20, 2015, and is limited to an extent of up to 10 percent of the capital stock.

At the Annual General Meeting on May 30, 2014, the Management Board was authorized with the approval of the Supervisory Board to increase capital stock once or several times to a total of up to € 7,448,000.00 for a period of five years, i.e. until May 30, 2019, by issuing new, no-par value bearer shares or registered shares in exchange for cash contributions or contributions in kind.

AGREEMENTS IN THE EVENT OF A CHANGE OF CONTROL. As of December 31, 2014, financial liabilities amounting to € 407 (December 31, 2013: 931) million existed for which creditors can demand early repayment in the event of a change of control (§ 315 (4) No. 8 HGB). A change of control shall be deemed to occur if Qatar Solar S.P.C. and the current or future members of the Management Board together directly or indirectly hold a total of more than 49.9 percent of the issued shares, another person or a group of persons acting in concert other than those aforementioned directly or indirectly holds more than 30 percent of issued shares, or all material assets of SolarWorld AG are sold to one person or a group of persons acting in concert.

The information pursuant to § 315 (4) No. 1 and No. 3 HGB (the composition of subscribed capital and shares in capital) can be found under ► <u>The stock – p. 029</u>. With regard to § 315 (4) Nos. 4, 5 and 9 HGB, no information is required.

# REMUNERATION OF THE MANAGEMENT BOARD AND SUPERVISORY BOARD

For information about the remuneration system for the Management Board and Supervisory Board, please see the

► <u>Remuneration report – p. 098</u>. This information is part of the group management report.

# **BUSINESS REPORT 2014**

### THE STOCK

**CONSIDERABLE FLUCTUATIONS ON STOCK MARKETS.** Various geopolitical conflicts kept the international capital markets in suspense during 2014 and weighed on the major indices. At the same time, and particularly towards the end of the year, there were growing concerns about potential deflation in the eurozone. This fear was worsened by the dramatic slump in oil prices from mid-year onwards. The continuing expansionary monetary policy of the key international central banks and robust economic data from the eurozone and United States had a countervailing positive impact on vstock markets.

This uneven environment caused the German stock index (DAX) to chart an extremely varied course in the reporting period. Thus, while Germany's leading share index climbed to multiple all-time highs beyond the 10,000-point mark, it also repeatedly experienced some drastic corrections. It reached its lowest level in the year at 8,572 points in mid-October, but rapidly recovered. On the cut-off date December 30, 2014, the DAX closed at 9,806 points, having gained 2.2 percent since the start of the year. By contrast, the DAX International Mid 100 Performance index, in which the SolarWorld stock is listed, fell 4.4 percent during the past fiscal year.

**SOLAR STOCKS IN SHARP FALL.** Based on optimistic growth forecasts for the photovoltaics industry, solar stocks initially performed well at the start of the year. Prospects clouded as time went by, however, as it emerged that new installations of solar power systems in China might be lower than expected. Constantly falling oil prices put further pressure on solar stocks. As a result, the Photovoltaik Global 30 Index gave up 24.6 percent to close at 22.9 points on December 30, 2014.

**SOLARWORLD STOCK AFFECTED BY RESTRUCTURING.** During the first half-year, the capital measures undertaken as part of our financial restructuring and their technical implementation had a decisive influence on the SolarWorld stock price.

► Financial restructuring – p. 033

As a result of the capital reduction in January 2014, in which every 150 SolarWorld shares were consolidated into one share, the now-converted stocks were given the new International Securities Identification Number (ISIN) DE000A1YCMM2.

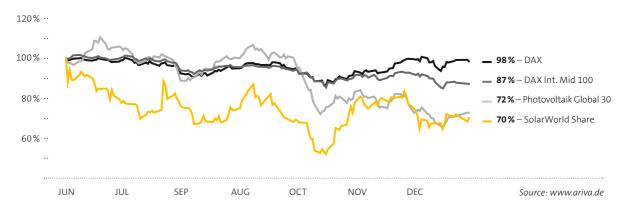
On February 24, 2014, in the course of the capital increase, 14,151,200 new SolarWorld shares were issued. Because of formal legal differences between the theoretical dividend entitlements for fiscal years 2012 and 2013, these new shares at first traded under a separate ISIN DE000A1YDED6. After the new shares were issued, at times there were large differences between the stock exchange valuations of the old and new shares. In the company's view, these price differences were probably due to the low trading volume and a "short squeeze" on the old stocks, which at times resulted in an artificially high price level. Shortly before the consolidation, the price of the old shares, which represented only 5 percent of the capital stock, and the price of the new shares representing 95 percent and hence the majority of the capital stock, became ever more closely aligned.

With the conclusion of the Annual General Meeting on May 30, 2014, all differences between the two SolarWorld stocks were removed. Consequently, on the next trading day, the ISIN of the new SolarWorld stocks was changed to that of the old stocks (DE000A1YCMM2). Thus, all 14,896,000 shares of SolarWorld AG have been listed under a single identification number since June 2, 2014.

Since the technical implementation of the financial restructuring was completed within the first half of 2014, in the second half-year the SolarWorld stock was more exposed to general market developments and followed the negative

trend. It fell to its lowest level in mid-October, at  $\in$  9.41. The stock recovered somewhat by the end of the year to close at  $\in$  13.00 on the cut-off date.

#### PERFORMANCE OF SOLARWORLD SHARE AFTER FINANCIAL RESTRUCTURING



G 05

### INDICATORS FOR THE SOLARWORLD STOCK (ISIN DE000A1YCMM2)

Capital stock as at December 31, 2014	€ 14,896,000
Total number of shares as at December 31, 2014	14,896,000
Proportion of shares in free float as at December 31, 2014	50.1%
Xetra closing price as at December 30, 2014	€ 13.00
Market capitalization as at December 30, 2014*	€ 193,648,000
Earnings per share	€ 36.28
Average Xetra trading volume since consolidation on June 2, 2014	52,156 shares per trading day

<sup>\*</sup> Product of shares in circulation and closing price

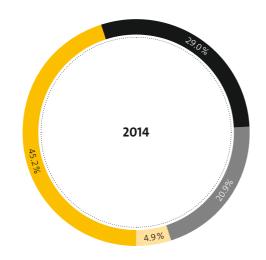
### CAPITAL STOCK AND SHAREHOLDER STRUCTURE

On January 20, 2014, the capital stock of SolarWorld AG was reduced in a simplified capital reduction by share consolidation from € 111,720,000 to € 744,800. In the subsequent capital increase on February 24, 2014, the company issued 14,151,200 new shares, thereby raising its capital stock to € 14,896,000. By the cut-off date December 31, 2014, the capital stock of the company remained unchanged at this level and was divided into 14,896,000 no-par value bearer shares with an imputed nominal value of € 1.00.

The shareholder structure of SolarWorld AG changed substantially during 2014 as a result of the financial restructuring.

In 2014, CEO Dr.-Ing. E. h. Frank Asbeck and the companies Solar Holding Beteiligungsgesellschaft mbH and Eifelstrom GmbH, which are controlled by him, purchased in total a 20.85 percent stake of the capital stock of SolarWorld AG. The company published the corresponding notifications pursuant to § 15a of the German Securities Trading Act

### **SHAREHOLDER STRUCTURE AS AT DECEMBER 31, 2014**



- Free float
- Qatar Solar S.P.C., Doha/Qatar
- Dr.-Ing. E. h. Frank Asbeck, Bonn/Germany
- Strategic Value Master Fund Ltd., George Town/Cayman Islands

#### G 06

(WpHG) and also provides further information concerning the transactions on its website at ► <u>www.solarworld.de/</u> en/directors-dealings.

Furthermore, the strategic investor Qatar Solar S.P.C. came on board by acquiring a 29.00 percent stake in the new capital stock of SolarWorld AG. Itom Investment S.à r.l., a company formed specifically to handle the technical implementation of the financial restructuring, also acquired a substantial share of the voting rights in SolarWorld AG in the course of the restructuring. Since it managed the shares for institutional investors on a trustee basis, it fully divested its holdings over the course of the year.

In the reporting period, SolarWorld AG did not make use of the authorization given by the Annual General Meeting of May 20, 2010, to acquire treasury shares pursuant to § 71 (1) No. 8 of the German Stock Corporation Act (AktG). In May 2014, the company sold its 6,164 old treasury shares, which it had held up to that time, and which corresponded to a share of capital stock with voting rights of 0.04 percent, via the stock exchange. As at December 31, 2014, the company no longer held any treasury shares.

During the period under review, SolarWorld AG received numerous voting rights notifications pursuant to §§ 21, 25 and 25a WpHG, especially immediately following completion of the financial restructuring, which it published in accordance with capital market requirements. An overview of published voting rights notifications appears on our website at www.solarworld.de/notification-of-voting-rights.

### ANNUAL GENERAL MEETING

SolarWorld AG's first Annual General Meeting since the completion of financial restructuring was held on May 30, 2014. A total of about 69 percent of the capital stock took part in voting. At the meeting, shareholders approved of the actions of the Management Board and Supervisory Board of SolarWorld AG for fiscal years 2012 and 2013, in each case by majorities of more than 99 percent of the capital stock represented. The Annual General Meeting also approved the creation of authorized capital in an amount of up to € 7,448,000.00. The aim is to enable a flexible and rapid response to market conditions in the future while minimizing the negative impact on the company's share price.

► Management Board powers – p. 028

Furthermore, the Annual General Meeting elected five new members to the Supervisory Board of SolarWorld AG, which had been enlarged from three to six persons in the course of the financial restructuring. The long-serving chairman of the Supervisory Board Dr. Claus Recktenwald and Board member Marc M. Bamberger did not stand again for election, with the result that both ceased to be members of the Supervisory Board of SolarWorld AG, effective at the end of the meeting.

The newly elected members of the Supervisory Board were:

- Dr. Khalid K. Al Hajri, Doha, Qatar
- Faisal M. Alsuwaidi, Doha, Qatar
- Heiner Eichermüller, Scottsdale/Arizona, United States
- · Dr. Andreas Pleßke, Herrsching am Ammersee, Germany
- Jürgen Wild, Vaucresson, France

Chairmanship of the newly elected Supervisory Board was assumed by Dr. Georg Gansen, resident in Bonn, Germany, who had previously been re-elected as a Supervisory Board member at the Extraordinary shareholders' meeting on August 7, 2013. Heiner Eichermüller is the Deputy Chairman.

• Corporate governance report 2014 – p. 093

### CAPITAL MARKET COMMUNICATION

SolarWorld Investor Relations use various communication tools to take account of requirements to provide comprehensive, transparent and timely information to the capital market. ► <u>Corporate governance report 2014 − p. 093</u> In this way, SolarWorld is able to inform a wide range of interested parties about the company's strategy, positioning and growth potential as well as about business development, the economic position and current and future opportunities and risks

In 2014, we further intensified communication with capital market representatives. For example, the Chief Financial Officer and the Investor Relations department held numerous one-on-one and group talks with institutional investors and analysts as part of ten international road shows and conferences. Investors' main topics of interest included our turnaround expectations, the acquisition of cell and module capacities from Bosch Solar Energy AG, the potential to improve our cost position, our operational restructuring and the positioning and competitiveness of the SolarWorld group. Much interest was also expressed in our growth prospects, particularly in the U.S. market and the market potential of our new storage solutions.

Since the financial restructuring was completed, analysts' assessments of the value potential of the SolarWorld stock have been mainly positive. As at the end of 2014, five out of seven analysts recommended the stock as a buy. Analysts' evaluations accessible to SolarWorld are made available on our website.

### **MAJOR BUSINESS EVENTS**

FINANCIAL RESTRUCTURING SUCCESSFULLY COMPLETED. After approximately one year, SolarWorld AG successfully completed its financial restructuring on February 24, 2014. As a result, SolarWorld AG's financial liabilities fell from around € 1 billion to just € 427 million – a reduction of around € 570 million. The restructuring considerably changed the company's shareholder structure. ► Financial restructuring – p. 033 ► Capital stock and shareholder structure – p. 030

**NEW INVESTORS SECURED.** In the course of the financial restructuring, we succeeded in convincing new investors of the future viability of SolarWorld AG. The strategic investor Qatar Solar S.P.C. came on board by acquiring a 29.00 percent stake in the new capital stock of SolarWorld AG. The new anchor shareholder also provided a credit line of € 50 million in 2014. ► *Capital stock and shareholder structure* − *p. 030* 

PARTS OF SOLAR DIVISION ACQUIRED FROM BOSCH. On March 12, 2014, SolarWorld AG took over Bosch Solar Energy AG's cell and module production facility in the Thuringian town of Arnstadt, Germany. Via this step, SolarWorld significantly increased its nominal capacities and further enhanced its technological know-how. ► <u>Production – p. 042</u> ► <u>Innovation report – p. 045</u>

solarworld on international growth trajectory. During the year under review, SolarWorld was able to take advantage of rising global demand for solar power products, increasing its shipments of modules and kits by 55 percent to 849 (2013: 548) MW. The United States became our largest single market, accounting for a share of 41 percent. SolarWorld also recorded strong growth rates in France, the United Kingdom and Japan

in 2014. In Germany, our home market, we managed to increase our shares in a decreasing market environment. ► <u>Trade-p.037</u> In 2015, SolarWorld plans to continue on its growth trajectory and further expand production capacities accordingly. ► <u>Future development in production-p.087</u>

**BRAND STRATEGY LAUNCHED UNDER REAL VALUE.** Under the message of REAL VALUE, in 2014 SolarWorld launched a global brand strategy that addresses the increasing internationalization of its business activities. REAL VALUE was rolled out over the course of the year in all of SolarWorld's sales markets. ► *Marketing* − *p. 040* 

NEW PRODUCT MANAGEMENT BOARD DEPARTMENT FORMED. On April 1, 2014, the Supervisory Board of SolarWorld AG appointed Jürgen Stein as a new member of the Management Board. Stein, who has a background in engineering, joined the group in 2011 as head of global purchasing. Now, in his role as Chief Product Officer (CPO), he is in charge of the newly created Management Board department for product management, product development, quality management, purchasing and supply chain. ► Corporate governance report 2014 – p.093

### FINANCIAL RESTRUCTURING

Owing to the international solar industry crisis, it was necessary for SolarWorld AG to renegotiate its financial liabilities with its creditors in 2013. This complex process lasted for somewhat more than one year, before the group successfully completed its financial restructuring on February 24, 2014.

SolarWorld AG was able to convince its shareholders and creditors alike of the viability of its restructuring concept. The concept was approved in two noteholders' meetings and one extraordinary shareholders' meeting in August 2013. All creditor groups, joint representatives of the noteholders and new investor Qatar Solar S.P.C. signed the final restructuring agreement on January 6, 2014. On January 13, 2014, the Cologne Higher Regional Court granted approval for the resolutions of the noteholders' meetings and extraordinary shareholders' meeting of August 2013 to be entered in the Commercial Register. As a result, SolarWorld AG was able to complete the following financial restructuring measures:

 On January 20, 2014, the capital stock of the group was reduced via a simplified capital reduction at the ratio 150:1 from € 111,720,000.00 to € 744,800.00.

- On February 24, 2014, a capital increase by contribution in kind with existing shareholders' subscription rights ruled out was implemented by issuing 14,151,200 new no-par value shares with an imputed nominal value of € 1.00. As a result, the capital stock of SolarWorld AG increased from € 744,800.00 to € 14,896,000.00. The new shares were issued against contributions in kind exclusively to creditors of SolarWorld AG (debt-to-equity swap). As a result of the contributions in kind, the financial liabilities of SolarWorld AG were reduced by 57 percent or € 570 million to € 427 million. ► The stock p.029
- In the course of restructuring, the new investor Qatar Solar S.P.C. acquired 4,319,840 of the company's new shares from the creditors at a previously agreed purchase price. This was equivalent to a 29 percent stake in the capital stock of SolarWorld AG.
- Dr.-Ing. E. h. Frank Asbeck, founder and CEO of SolarWorld AG, acquired 2,904,720 new shares from the creditors as part of the restructuring. This was equivalent to a 19.5 percent stake in the capital stock of SolarWorld AG.

- Shareholders who held at least 1,000 no-par value shares in SolarWorld AG on August 7, 2013, along with other interested noteholders, were entitled to submit unlimited offers to buy new shares and notes which existing old noteholders did not subscribe to.
- The existing bonds were exchanged for two new bonds with reduced nominal value and a term of five years. The earlier assignable loans (Schuldscheine) and a loan originally provided by the European Investment Bank are being continued under new conditions; the new loans also have a term of five years. The new bonds and the new loans are comprehensively secured by assets of the SolarWorld
- group. All financial creditors are entitled to the collateral on a pro rata and pari passu basis, i.e. ranking equally.
- Following the financial restructuring, Qatar Solar Technologies Q.S.C. made a loan of € 50 million available to SolarWorld AG.

SolarWorld is back on a solid financial footing following the completion of our financial restructuring on February 24, 2014. The group has established the necessary conditions to successfully pursue its business operations and return to profitability in 2015.

### THE MARKET

### **ECONOMIC ENVIRONMENT**

Over the course of 2014, geopolitical conflicts between Ukraine and Russia put the brakes on the global economy. Following a slight lull, however, the global economy was growing again by the end of the year. Thanks to lower oil prices and continuing highly expansive monetary policy, there was an upturn in private consumption and investment. All in all, global production capacity utilization increased and world economy grew by roughly 3.5 (2013: 3.2) percent.

In SolarWorld's most important sales region, the United States, continuous improvement in the job market stimulated the economy. Ever better sales prospects induced companies to invest more so that the economy grew more strongly than in the previous year by 2.2 (2013: 1.6) percent. In the eurozone, the economy gradually picked up pace and the region emerged from recession as the year progressed. Economic output in the eurozone increased by 0.8 (2013: -0.4) percent in 2014. Growing by 1.5 (2013: 0.4) percent, the German economy continued to expand and

appeared very robust. This was attributable in particular to an increase in purchasing power due to higher wages and falling energy prices.

### THE SOLAR POWER MARKET

RISING GLOBAL DEMAND FOR SOLAR PRODUCTS. The international solar market picked up considerable momentum in 2014. Market analysts predict global demand of between 45 and 47 GW for 2014 as a whole, equating to an increase of 13 to 18 percent compared with the previous year (2013: 40 GW). This demand growth laid the foundation for better utilization of available capacities, with the result that the supply-demand relationship normalized in comparison with previous years and an initial recovery from the industry crisis took hold.

While measures imposed in the United States to restore fair competition had a stabilizing effect on the price level, prices in Europe came under renewed pressure in 2014.

► International trade disputes – p. 036

U.S. MARKET STILL EXPANDING. The U.S. solar market continued its fast-paced growth in 2014 and developed into one of the key drivers of global demand for solar technology. Bloomberg expects newly installed capacity to increase by 37 percent in 2014 to 6.3 (2013: 4.6) GW. Making up almost 50 percent of the U.S. solar market, the residential and commercial segments were particularly dynamic. Especially the residential segment grew overproportionately due to new financing opportunities. However, the majority of demand in the U.S. solar market is still attributable to the utilities segment of the market, accounting for more than 50 percent of newly installed capacity in 2014. Solar power generation is now so economically attractive that utilities are commissioning solar projects even in regions that do not mandate a minimum share of solar power in the electricity mix. They expect that this will hedge against future fluctuations in natural gas prices.

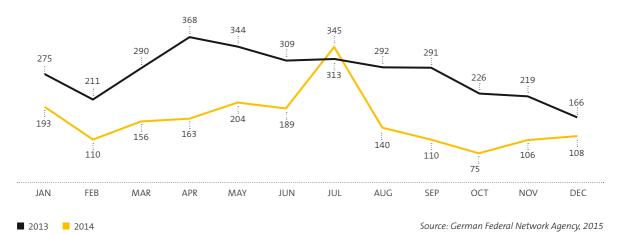
**EUROPEAN SOLAR MARKET UNDER CONTINUED PRESSURE.** In Europe, the United Kingdom established itself as the most important solar market in 2014. Demand there doubled, compared with the previous year — Bloomberg estimates newly installed capacity of around 2.2 (2013: 1.1) GW in 2014. France also saw a fast pace of growth in 2014, with the French solar market expanding by around 67 percent to 1.0 (2013: 0.6) GW. Yet, the positive trend in these markets

was not sufficient to compensate fully for falling demand in Germany and Italy, with the result that the market volume of the European solar market as a whole declined by around 36 percent to 6.8 (2013: 10.6) GW.

During the period covered by this report, a further amendment to the German Renewable Energy Sources Act (EEG) caused considerable uncertainty in the German market. With its coming into force on August 1, 2014, a charge of 30 percent of the EEG levy is now applicable to self-consumed solar power — in the 2014 fiscal year the levy amounted to 6.25 euro cents per kWh. Solar power systems that have an output of less than 10 kW or which produce less than 10,000 kWh per year are exempt from the levy. This minimum threshold means that self-consumed solar power remains attractive for private households, but private customers were reluctant to make a purchase because of the changes in legislation. According to the German Federal Network Agency, new installations fell by 42 percent to 1.9 (2013: 3.3) GW in the German market as a whole.

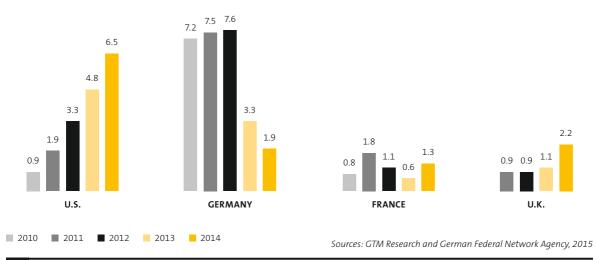
In 2014, the Italian solar market underwent a shift toward a model that could become more significant in other markets too in future. Following the expiration of the "Conto Energia V" program in 2013, the new net billing system now no longer offers any additional feed-in compensation

#### **NEW SOLAR POWER INSTALLATIONS IN GERMANY IN MW**



G 07

#### HISTORICAL DEVELOPMENT OF OUR MAIN SALES MARKETS IN GW



G 08

for solar power. Instead, it assumes the grid parity of solar power and provides for power consumed from and fed into the grid to be offset against each other on the customer's electricity bill. After initial uncertainty, the new model is now gaining increasing acceptance. Thus, the second half of the year brought a return to growth in the number of customers in Italy deciding to purchase a solar power system. Bloomberg estimates that newly installed capacity in Italy will be in the region of 0.4 (2013: 1.4) GW in 2014.

**ASIAN MARKETS IN TOP POSITION.** With newly installed capacity of 10.3 (2013: 7.1) GW and around 10.5 (2013: 12.9) GW respectively, Japan and China moved into top positions in the international solar market. Despite high demand, the Chinese market holds no interest for SolarWorld, since it is completely closed to foreign manufacturers. In contrast, Japan — where roof-mounted systems make up around 70 percent of the market, and there is strong interest in long-lasting, high-quality solar power solutions — offers good prospects for SolarWorld to develop its own presence in the Asian market and participate in its growth.

### INTERNATIONAL TRADE DISPUTES

**U.S. MARKET SHOWS FIRST SIGNS OF STABILIZATION.** At the end of 2013, our subsidiary in the United States initiated proceedings against improper trade practices by Chinese and Taiwanese solar manufacturers. This step became necessary because many manufacturers were deliberately circumventing the duties on solar modules containing cells produced in China, which have been in force since December 2012. They utilize cells from Taiwan so that they can continue dumping without having to pay the duties. For this reason, fair competition had not yet been restored in the United States.

On June 3 and July 25, 2014, the U.S. Department of Commerce imposed substantial provisional duties on U.S. imports of crystalline silicon solar panels made by the Chinese solar industry from solar cells fabricated in third countries using Chinese inputs as well as solar cells made in Taiwan, regardless of where they are assembled into modules.

In the second half of 2014, it became clear that these preliminary remedies had already begun to restore fair competition in the U.S. market – to the benefit of the domestic solar industry.

On December 15, 2014, the U.S. Department of Commerce took a decision concerning the continuation of the duties that were provisionally imposed in June and July, respectively, and set anti-dumping duties at a level of about 75 percent for solar power modules produced in China, as well as around 20 percent for solar cells from Taiwan and solar modules containing Taiwanese cells. This was the penultimate step in these trade proceedings. Following a final ruling by the U.S. International Trade Commission in January 2015, the duties are now permanently in force.

Supplementary report—p.063

**TRADE DISPUTE IN THE EU CONTINUES.** Within the European Union, the trade dispute triggered by the improper practices of Chinese manufacturers had still found no complete resolution by the end of 2014. In 2013, the European Commission ruled that illegal trade practices had taken place and imposed anti-dumping and anti-subsidy duties. At the same time, however, the European Commission and the Chinese solar industry agreed to a minimum price and an import quota, which, if observed, would mean the duties did not need to be paid. SolarWorld and other supporters of the EU ProSun industry initiative have taken action against the undertak-

ing at the European Court of Justice. Practice has shown, moreover, that Chinese manufacturers keep undercutting the minimum price, without being penalized. Thus, illegal trade practices in the EU have not yet been effectively prevented. SolarWorld will therefore continue its campaign to restore fair competition.

## REPERCUSSIONS OF THE GENERAL CONDITIONS ON BUSINESS DEVELOPMENT

Following the successful completion of our financial restructuring and the acquisition of solar activities from Bosch, SolarWorld was able to use its new-found power to take advantage of growth in the international solar market and increase its shipments. We increased our shipments by around 55 percent, compared with the previous year, significantly outstripping growth in the global solar market. We are particularly well-positioned in the U.S. market with our new REAL VALUE brand identity. In the United Kingdom and Japan, we held our ground in the roof-mounted systems segment.

### **TRADE**

### **GENERAL TREND**

**SHIPMENTS UP 55 PERCENT.** We are growing strongly again: In the 2014 fiscal year, the SolarWorld group increased its groupwide shipments of solar modules and kits by around 55 percent to 849 (2013: 548) MW. This beat our forecast for the year; we expected growth of at least 40 percent. By mid-September 2014, we had exceeded our total shipments for the previous year. In September, we shipped more than 100 MW within a single month for the first time ever, thus setting a new record for ourselves.

The volume growth was possible not least because we had acquired additional production units from Bosch Solar Energy AG in the reporting year. In addition, the Bosch brand's reputation for high-quality solar products strengthened

the international positioning of SolarWorld AG as a quality provider — another important factor for success with customers. In 2014, we also linked our international sales activities with the new REAL VALUE brand strategy.

► Marketing – p. 040

INTERNATIONALIZATION CONTINUED. Further internationalization of our sales activities brought us success in 2014. Shipments outside Germany − our home market − accounted for an increasing share of 86 (2013: 77) percent. We recorded our highest growth groupwide in the United States, Japan, the United Kingdom and France. Our largest single market was the United States, where we achieved a share of around 41 percent of our total shipments of modules and kits in 2014. ► Individual market trends − p. 039

Thanks to our positioning as a quality provider, we achieved higher sales prices internationally than our competitors. In the 2014 financial year as a whole, however, we recorded regional differences in our average sales price trends. Our prices in America and Asia were stable to slightly rising. In Europe, by contrast, prices came under continued pressure. ► International trade disputes – p. 036

SALES ACTIVITIES DEVELOPED FURTHER WORLDWIDE. In 2014, Solar-World made adjustments in its sales department to make better use of opportunities in the international markets. We improved our internal organization and sales approach. Our top distribution centers are Hillsboro (U.S.) for the entire American continent and Bonn (Germany) for Europe, Asia/Pacific, MENA and Africa. We are also present in the markets via our sales team or local partners.

Our Certified Partner programs continue to form an important pillar of our distribution concept. ► <u>Marketing</u> – <u>p. 040</u> In a number of European markets and in the United States, we operate these programs to integrate installers into our business as intermediaries who reach end customers. In addition to technical consulting, we placed greater emphasis on joint sales success in 2014.

As our success in the United States, France and the rising UK market shows, early engagement to develop region-specific distribution channels pays off in combination with the right product offering.

In the established markets of Germany and Italy, which are now going through a difficult transformation process following a long boom phase, we have made adjustments in our sales department for smaller-scale business. This opens up the possibility, via a focused sales approach, of winning market share.

**NEW PRODUCTS DRIVE GROWTH.** In 2014, business was spurred on by our product innovations – in which quality, performance and aesthetics are particularly prominent features. For example, our new 72-cell module Sunmodule XL and our

high-performance modules with new PERC technology were very popular with buyers. Our glass-glass module Sunmodule Protect, which we launched in 2013, also sold very well.

SALES MIX DOMINATED BY MODULE BUSINESS. The "Trade" segment comprises the sale of modules and kits, in which we combine modules and system components such as inverters and frames into a complete solar power solution. Our kits porfolio included the SolarWorld Kit easy, a standardized complete package for the roofs of private homes. It has now been successfully launched in eight markets. In the second half of 2014, furthermore, we launched the SunPac LiOn storage system in the German market. ► Innovation report – p. 045

Nevertheless, shipments of kits and system technology were below target in 2014 and on a downward trend, compared with the previous year. The main reason for this development was the regional shift in shipments among our markets. Shipments of kits have typically been highest in Germany. Here, we were not able to expand our business to the envisaged extent, but we managed to increase our market share.

In 2014, to obviate financial risks and avoid tying up cash, we deliberately put aside project planning and the implementation of new turnkey large-scale projects. Strong demand for modules provided us with excellent sales opportunities and hence brought good capacity utilization of our production facilities, with the result that in the first year following our financial restructuring, we decided to concentrate on this lower-risk business area.

However, we used our expertise and contacts in the large-scale plant business to generate module supply orders and further boost our shipments. At the beginning of July 2014, our European sales team in Bonn signed a supply contract with a volume of 50 MW for a large-scale project outside Europe, which was entirely shipped in the second half of 2014. In addition, we supplied a total volume of about 70 MW in the first half-year for several large-scale projects in France.

### INDIVIDUAL MARKET TRENDS

SHIPMENTS ALMOST DOUBLED IN THE UNITED STATES. Business in America surpassed our ambitious targets in 2014. We took advantage of the strong upward trend in this market and nearly doubled our shipments, compared with the previous year. One key success factor proved to be that we were able to approach customers with an attractive module portfolio which responded precisely to customers' needs. Our success in the U.S. was underpinned by the fact that, for the first time, sales and production operated under the same management from our Hillsboro site.

In the United States, our high-performance modules in the standard 60-cell format as well as new modules in the 72-cell format, were both in high demand. We were also able to offer the high-performance 60-cell modules in an attractive combination with the glass-glass design. There is particular demand for 72-cell modules for large-scale projects, since the larger format can bring down project costs.

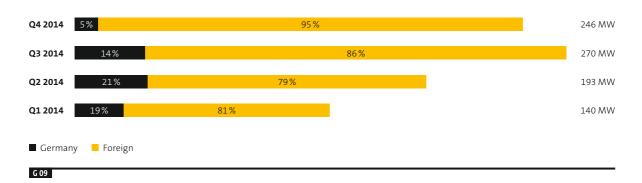
In the United States, as in other markets, we were rewarded for our long-term engagement in developing distribution contacts. In 2014, we entered into a number of strategic partnerships intended to open up various inroads into the market – e.g., via large dealer networks and fast-growing roofing and installation companies.

MARKET SHARES EXPANDED IN GERMANY. The German solar market decreased significantly in 2014. Against this trend, Solar-World grew in its core business, sales of modules and kits excluding turnkey large-scale projects. Due to our strength in the segment of small plants under 10 kW, we managed to raise our market share in this area in Germany to around 17 percent. Including turnkey large-scale projects, our shipments decreased to 119 (2013: 134) MW. This was mainly attributable to the sale of a large solar park in 2013 with an overall capacity of 21 MW.

**REALIGNMENT OF BUSINESS IN ITALY.** In line with the overall market development in Italy, SolarWorld had to accept a harsh drop in shipments in 2014. However, we plan to make use of opportunities resulting from the transformation of the Italian market to benefit our business by engaging in focused dialog with our partners and customers and emphasizing the potential of solar technology to reduce energy costs. We laid the foundation for an even stronger local presence in this market in 2014 by setting up our own office in Verona.

**BEST-SELLING MODULE BRAND IN FRANCE.** Our longstanding commitment to developing lasting distribution structures and having a local presence with the right product offering also paid off in the French market in 2014. We more than quadrupled our shipments there, compared with the previous year, making SolarWorld the best-selling module brand

### **REGIONAL DEVELOPMENT OF SHIPMENTS IN THE "TRADE" SEGMENT**



in France. In the first quarter alone, we acquired a high level of orders on hand for the year as a whole because many customers registered their planned solar power systems before the end of the local content rule in March 2014, so that they could receive a bonus payment. In France, about half of our shipments were used in large-scale projects. For the further expansion of our small systems business, we launched our private home solution "Toit Solaire IAB", which is tailored to French customers, in 2014.

**STRONG SMALL SYSTEMS SEGMENT IN UK.** The United Kingdom has developed into an important market for us. We were able to increase our volume of shipments in this market by 70 percent. We are strongly positioned here in the segment of private and commercial systems below 5 MW. In the second half of 2014, we launched the SolarWorld Kit easy, which is a hit with our British customers.

**GROWTH IN JAPANESE MARKET.** Japan is our largest market in the Asia-Pacific region. Compared with the previous year, we more than doubled our shipments here in 2014. SolarWorld is popular with Japanese customers as a German manufacturer with a focus on quality and performance. From 2015, SolarWorld will be present in Japan with its own sales subsidiary. ► *Supplementary report* − *p.063* 

FIRST SUCCESSES IN MENA REGION. While North Africa and the Middle East do not operate any regulatory schemes to promote the expansion of renewable energies, they are nevertheless a highly promising market for photovoltaics because they receive large amounts of sunshine. The solar market there is still young and mainly consists of the price-sensitive project segment. Having made many contacts in this region, SolarWorld has now started to establish partner networks. By way of example, we achieved an interesting sales success in Lebanon, where we supplied glass-glass modules to operate the largest solar-powered water pump in the world. This robust module type is particularly well-suited to desert regions.

**SOUTHERN AFRICA OFFERS INTERESTING BUSINESS AREAS.** We served sub-Saharan Africa from our sales office in Cape Town (South Africa) throughout 2014. An interesting segment here for SolarWorld is roof-mounted systems for businesses that produce solar power for their own consumption.

### MARKETING

**REAL VALUE ROLLED OUT.** Increasing internationalization of our business requires a global brand strategy with a clearly differentiating customer value proposition. We reached a milestone in this regard during 2014 with the launch of REAL VALUE. "SolarWorld − REAL VALUE" directly indicates SolarWorld's unmistakable performance promise in its logo and signals a commitment to quality and an inner attitude toward our customers. ► *Positioning* − *p.023* 

Four core values, which, combined, are uniquely associated with the brand, were identified from in-depth analysis of our product offering and the company's positioning in 2013 and 2014. Everything we do is geared to fulfilling the promise to customers that these four values represent: proven quality, fulfilling customers' needs with leading solutions, trusted partnership, and authentic focus on sustainability. We set ourselves apart from the competition with this unique combination of values.

Our main focus in all marketing activities in 2014 was on rolling out our new international brand strategy and associated branding. Over the course of the year, we successively launched the REAL VALUE brand identity in our individual markets. In Germany, Belgium, Italy, the United States and South Africa, our long market experience and corresponding high level of recognition worked in our favor.

STRENGTHEN INTERNATIONAL CERTIFIED PARTNER PROGRAMS. To continue to grow in the international solar markets, our goal is to ensure that as far as possible, our products and services are aligned with customers' needs. Trusted partnerships with installers as intermediaries who reach end customers play a key role here. ► <u>Trade − p.037</u> Selected installers are integrated into our international distribution concept as SolarWorld Certified Partners. These Certified Partner programs enable us to respond directly to customers' wishes and operate in close contact with the market. For this reason, we continued working to expand and improve our international programs in 2014. The result is a nation-wide network of Certified Partners in Germany and other key markets, including the United States, United Kingdom, Italy and France.

In 2014, we added to the range of services for SolarWorld Certified Partners, e.g. by expanding content on our international online platforms for Certified Partners. In addition to online services, we offer our Certified Partners an extensive range of product and sales training courses. Certified Partners also have the opportunity to take part in special guided tours at our production sites in Arnstadt, Freiberg and Hillsboro, where they can experience our excellent manufacturing standards for themselves and use these as a sales argument in talks with customers.

**EMPHASIZE ADDED VALUE OF COMPLETE SOLAR POWER SYSTEMS.** Solar-World intends to increase the share of complete solar power systems in its sales mix. We therefore emphasized the benefits of complete systems in communication with installers and end customers. We focused on our home market Germany, where we achieve a high share of complete systems. We also worked on establishing the system concept more firmly in markets including the United Kingdom and United States.

SolarWorld's new and improved solar power solutions are particularly aimed at increasing options for self-sufficiency. With high-performance systems, innovative storage technologies and intelligent energy management, our customers can use their self-produced power in their own home, thereby cutting their electricity costs. In our efforts to attract end customers in Germany, we aimed to clearly communicate and emphasize these customer benefits. This drive included a nationwide advertising campaign, "Homemade power at a fixed price", with an accompanying TV spot. During the campaign period, customers could buy the pre-assembled kit system SolarWorld Kit easy for a fixed price, including VAT and installation. The benefit for our customers was the ease of keeping track of costs for the complete system as well as the rapid planning and installation capability.

We chose a similar approach for our nationwide Eigenstrom24 campaign in Germany, which centered around the new SunPac LiOn storage system based on lithium iron phosphate technology. The market launches of this new battery system and the Suntrol MyHome product − an online platform for controlling and increasing self-consumption that facilitates intelligent management − are the latest developments highlighting the expansion of our systems expertise. ► Innovations report − p. 045

**CLEARLY DIFFERENTIATED FROM COMPETITORS AT TRADE SHOWS.** Solar-World was present once again at selected international trade fairs and roadshows in 2014—e.g. in Germany, Japan, the United Arab Emirates, Australia, the United States, the United Kingdom and Italy.

In the year under review, our endeavors to enable customers and business partners to directly experience the added value of our brand were a strong feature of our trade show presence. We kicked off with Intersolar Europe—the world's largest trade fair for photovoltaics—in Munich, Germany. Our aim for this and subsequent trade show appearances was that REAL VALUE should be reflected not only in the design and architecture of our exhibition stand, but also in our product presentation and services for show visitors.

We staged an event that attracted special attention: a trial bike show by one of our employees who works as a quality engineer in module production at Freiberg, Germany. He used his trial bike to do tricks atop actual SolarWorld solar power modules, demonstrating the durability of the Sunmodule Protect, offering spectators not only entertainment but also particularly authentic proof of SolarWorld's commitment to quality.

Much positive feedback from partners, customers and other trade fair visitors in 2014 confirms that our positioning under the REAL VALUE claim puts us on the right path to successfully stand out from the mass of competitors.

**IMPLEMENT THE "GREEN IDEA" IN THE COMPANY AND SPREAD IT TO THE WORLD OUTSIDE.** Sustainability in all its dimensions forms part of our vision, is a core value of our brand and is enshrined in our corporate culture. To implement environmental sustainability — the "green idea" — within the company and communicate it outwardly is an especially important goal for us, which we continued to pursue throughout 2014. Thus, it was particularly gratifying that SolarWorld performed well in a new round of testing for both company and product certification and received the Green Brands Germany award again for 2014-2015. In an extensive validation process, companies receive the Green Brands seal if they demonstrate a sustainable strategic orientation and work to raise the public's awareness of the need for greater sustainability, environmental protection and a healthy lifestyle.

One ambassador for our vision of a solar world is the Solar-World GT, which was developed in longstanding partnership with the Bochum University of Applied Sciences. The solar vehicle competed and achieved runner-up in the 2014 European Solar Challenge.

### **PRODUCTION**

PRODUCTION GEARED TO GROWTH. We facilitated our shipment growth in 2014 by maximizing capacity utilization at our Freiberg/Germany and Hillsboro/U.S. production sites at all stages of the value chain over the course of the year. We also reactivated a part of our unused capacity. At Freiberg, module capacities in particular were ramped up. At this site, we flexibly produced a wide variety of module types and sizes. In the United States, we concentrated on producing modules with PERC cell technology. In the year under review, we achieved further increases in module output by refining this technology. In 2014, we were one of the first manufacturers in the world to produce monocrystalline 60-cell modules with 280-watt-peak output on a commercial scale. ► Innovation report − p. 045

The acquisition of cell and module production facilities from Bosch Solar Energy AG in the Thuringian town of Arnstadt, Germany, was a key boost to our capacities in 2014. In March 2014, our subsidiary SolarWorld Industries Thüringen GmbH acquired a cell production facility with a capacity of 700 MW and a module production facility with 200 MW capacity.

SolarWorld immediately put the production lines at Arnstadt into operation and began shipping the first modules from the site a little over a month later, in April 2014. During the ramp-up phase in the second and third quarters, we continuously increased our capacity utilization rates.

#### PRODUCTION CAPACITIES AT YEAR-END 2014



G 10

In the fourth quarter of 2014, our cell and module productions were operating at close to full capacity.  $\blacktriangleright$  *Economic* position 2014 – p. 055

**STRUCTURAL CHANGES IMPLEMENTED.** In production, the main concern in 2014 was to optimize process efficiency and our cost position. We therefore implemented a series of change measures at our production sites. ► <u>Operational measures</u> – p. 025

Swift integration of the Arnstadt site took priority. A string of factors facilitated this process, such as a similar set of values and geographical proximity to our Freiberg site, but also the fact that two managing directors with many years of management experience in the SolarWorld group are heading up the new subsidiary SolarWorld Industries Thüringen GmbH. In particular, extensive communication at all levels between employees at Arnstadt and Freiberg promoted integration of the sites.

At the group's largest site, Freiberg, which celebrated its 20th anniversary in August 2014, we also implemented structural changes during the period under review. Since July 2014, production lines there at all stages of the value

chain have been operating under a joint production subsidiary called SolarWorld Industries Sachsen GmbH. Merging the three previous production companies generated further synergy effects, enabling us to cut costs and optimize processes.

In the United States, we had already started to benefit noticeably in 2014 from the geographical and organizational consolidation of production, sales and other business activities at Hillsboro. During the period under review, this joint organizational unit brought production planning more closely in line with demand.

**PRODUCT PROCESSES OPTIMIZED THROUGH TPM.** In 2014, as in previous years, our employees played a major part in identifying new ways to improve processes and quality assurance. In Freiberg, we again used the Team Production Management (TPM) tool. During the year under review, 31 TPM teams comprising employees from the module, cell, wafer, technical service, logistics and administration departments were permanently dedicated to tracking down incidences of loss and waste, working to minimize it in future. The focus here was on further developing and stepping up shop-floor management.

### **GLOBAL SUPPLY CHAIN**

GLOBAL SUPPLY CHAIN OPTIMIZED. The SolarWorld group aims to establish a continuous supply chain that is customer- and sales-driven, as is usual in the automotive industry, for example. For this reason, purchasing, production planning and logistics have been embedded in a common organizational structure since 2013. In April 2014, we placed these areas under the responsibility of the newly created Product Management Board department. Our global supply chain was further optimized over the course of the year, enabling materials to be supplied at lower cost and more in line with our requirements. These measures also help to improve our product quality and services. At the same time, it is always strategically important to avoid or minimize dependencies on suppliers by ensuring a certain level of in-house production in the solar value chain.

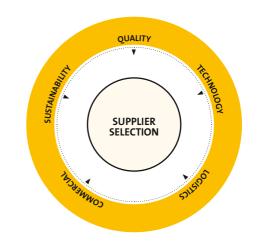
**COST OF MATERIALS REDUCED.** Since 2012, we have considerably reduced direct and indirect material costs in purchasing. This was vitally important for the success of our financial restructuring and now is also making a significant contribution to our return to profitability.

#### CONTRACTUAL RELATIONSHIPS WITH RAW MATERIAL SUPPLIERS RENEWED.

A secure supply of raw materials — especially silicon — at competitive conditions for our production facilities is a key factor for the success of our company in market terms. In February and July 2014, respectively, following extensive negotiations, we were able to put our contractual relationships on a new footing. Agreements with these partners have strengthened our operating business, because in addition to securing future supplies, they have a positive impact on our short- to medium-term liquidity.

**STRENGTHEN LONG-TERM PARTNERSHIPS.** Trusting partnerships are one of our company's core values, which define our relations with customers and suppliers. Long-term relationships with suppliers and service providers are a key element for lasting success in the solar industry. As a regular forum for ongoing, extensive dialog, we stage the SolarWorld Supplier Day. In April 2014, we held the third event of this kind at our new Arnstadt site.

### SUPPLIER SELECTION CRITERIA



G 11

considerable progress achieved in Logistics. Measures to improve our logistical processes and conditions, which began in 2013, were stepped up in 2014. For example, in the period under review, we put the group's freight delivery contracts at global level out to new tender and achieved significantly better conditions than before. In this way, we managed to achieve savings of millions of euros and to reduce costs for logistics per watt-peak in a double-digit percentage range in 2014. At the same time, we streamlined processes in our logistics units, resulting in better delivery quality and reliability for our customers.

### **INNOVATION REPORT**

BOOST FOR SALES AND PRODUCTION. Innovations are a fundamental pillar for our group, since they underpin and strengthen our competitiveness. Through innovation, we not only constantly improve our product quality and performance, but we also open up new possibilities for generating and using solar power. This creates added value for our customers. Product innovations gave our sales an extra boost in 2014. ► Trade − p.037

As a manufacturing company, we operate in a market dominated by cost pressure. We therefore apply our innovative abilities to increasing the efficiency of our manufacturing processes and technologies. One focus here has been wafering. Improved sawing techniques have allowed us to significantly increase material yield and efficiency in both monocrystalline and multicrystalline wafer production.

**INTEGRATION OF ARNSTADT SITE BRINGS SYNERGIES.** We further added to our technological expertise in 2014 with the acquisition of parts of the former Bosch solar division. In particular, we benefit from synergies in PERC cell Technology. PERC stands

for Passivated Emitter Rear Cell. ► <u>Glossary - p.173</u> We implemented the PERC concept in the U.S. back in 2012. SolarWorld is an industry pioneer of this technology and in 2014, we had the highest PERC production share of all manufacturers worldwide. Our technological approach so far has concentrated on the rear of the cell, with great success. The former Bosch site at Arnstadt has been actively developing PERC technology for some time, but concentrating on the front of the cell. The two approaches complement each other well. Consequently, during the period under review, we worked hard to combine both processes. The result is that we achieved efficiency of 21.4 percent (under laboratory conditions), setting a new world record for monocrystalline PERC solar cells.

We will continue to pool experiences from the sites. We particularly benefit from having a solar cell pilot line with 80 MW capacity at Arnstadt in addition to our industrial production facility. This allows us to test new processes to production readiness without disrupting manufacturing operations.

### INNOVATIONSPROZESS DER SOLARWORLD

#### **CUSTOMERS' NEEDS PRODUCTS TECHNOLOGIES** ► wholesale ► solar module ► monocrystalline ► balance of system ► rooftop ► multicrystalline ► manufacturing ► commercial ► storage ► utility ► complete systems ► equipment ► off-grid **SALES AND MARKETING PRODUCT MANAGEMENT TECHNOLOGY MANAGEMENT**

G 12

**PRODUCT DEVELOPMENT PROCESS ENHANCED.** Under the leadership of the newly formed Product Management Board department, the product development process in the group was analyzed and improved during 2014. This should make it easier to pick the right projects in the future and enable faster industrialization of innovations.

For market-driven innovations, we require closely coordinated activities among sales, marketing, product management, research and development (R&D) and production. Our customers' needs and an analysis of trends in the solar market form the starting point for innovations. From here, we draw up a product roadmap. Our R&D subsidiary SolarWorld Innovations GmbH then has the task of determining the technological requirements for achieving the product innovations and making the necessary technologies available. In 2014, communication between the various departments involved in innovations was strengthened, e.g. via workshops.

**MODULE OUTPUT INCREASED.** The solar module is SolarWorld's core product, since it dominates the group's business both as an individual component and incorporated into complete solar power systems. It is therefore extremely important for us to maintain a constant lead over the competition in module technology. Our strength stems from an integrated consideration of the solar value chain. From crystallization, to wafer and cell production, to module production — at SolarWorld, we continued to work on stages of the innovation process in all areas throughout 2014. Furthermore, in research and development, as well as in production and all module inspection and testing processes, we always consider the module's possible applications in the system as a whole

SolarWorld brand modules trump the competition — e.g. with high electrical output that represents a key selling point. Thanks to PERC, we were able to produce, on a large-scale, monocrystalline modules in standard format with 60 cells that reach an average output of more than 280 Wp in 2014. Other modules without PERC achieve only around 260 to 270 Wp. In our product roadmap, we are aiming for an output in excess of 300 Wp with 60-cell modules.

#### **NEW DEVELOPMENTS IN STORAGE AND MANAGEMENT**

Product	SunPac LiOn	Suntrol eManager	Suntrol MyHome
Available	Since Q3 2014	Since Q1 2014	Since Q3 2014
Customer value proposition	System with lithium iron phosphate battery (5 and 10 kW) that is also suitable for retrofitting to existing solar power systems, with a 5,000 charge and discharge cycles, equivalent to a service life of about 20 years.	Customers can combine a solar power system, electrical appliances and a heat pump. Suntrol eManager provides yield forecasts and facilitates maximum use of self-generated power. Up to 90 % self-sufficiency can be achieved in private homes.	The new app graphically represents and provides remote control for all devices connected to the Suntrol eManager. The app recommends when to switch appliances on to optimize use of self-generated solar power.
Future potential	Strengthen positioning as a provider of co and so reduce electricity costs.	omplete solar power systems with the capa	bility to optimize homemade power use

T 10

INNOVATIONS IN COMPLETE SOLAR POWER SOLUTIONS. One feature that differentiates the SolarWorld group from competitors is its combination of strength as a module manufacturer with expertise as a provider of complete solar power solutions. Our employees in production-related research and development as well as product management have therefore stepped up collaboration in system development. Interdepartmental teams focus on applications that enable customers to both generate solar power and consume it according to their requirements. In 2014, their work yielded a number of innovations for storing solar power and intelligent consumption control. ► New developments in storage and management − p. 46

**IN-HOUSE EXPERTISE STRENGTHENED.** During 2014, the number of registered inventions and patents in the group increased due to the acquisition of assets from Bosch Solar Energy AG. ► *Development of inventions and patents* − *p. 047* 

LINKS WITH STRONG PARTNERS. Ever since 2007, our Freiberg subsidiary SolarWorld Innovations GmbH, at SolarWorld's largest production site, has been the hub of a network of machine and system manufacturers, and producers of consumables; the network also includes many partners in the research and scientific communities. All in all, Solar-World Innovations GmbH collaborated with more than 35 scientific institutes, universities and higher-education institutions in 2014

**INVOLVED IN PUBLICLY FUNDED PROJECTS.** SolarWorld AG continued to participate in publicly funded projects during 2014. The German federal government's Photovoltaic Innovation Alliance (Innovationsallianz Photovoltaik) research program played an important role here. SolarWorld Innovations GmbH has been coordinating a series of projects under the program as a leading partner. July 2014 saw the launch of the collaborative research project that is aiming at making complete solar power systems with storage solutions practically independent of feed-in tariffs. Likewise, since July 2014, we have been involved in a further project of the Photovoltaic Innovation Alliance to increase the efficiency of solar cells

SHAREOFR&DEMPLOYEES DECREASED. In 2014, R&D employees made up a lower percentage of the total number of employees, since integration of the Arnstadt site brought an unusually large rise in the number of employees in the group, by around 750 people. Apart from our R&D subsidiary SolarWorld Innovations GmbH, which develops fundamental technologies, other employees contributed to innovations in 2014 – particularly in product management. Furthermore, in production, a number of employees are tasked with continuous process improvement.

#### **DEVELOPMENT OF INVENTIONS AND PATENTS. AS OF DECEMBER 31**

	2010	2011	2012	2013	2014
Number of registered inventions	51	58	71	59	53
Number of active patent applications	106	230	226	234	345
Number of granted active patents	97	99	113	123	166
Number of active patent families	107	152	173	175	243

T 11

### HEADCOUNT DEVELOPMENT SOLARWORLD INNOVATIONS GMBH\* AS AT DECEMBER 31

	2010	2011	2012	2013	2014
Employees in research and development	74	98	118	118	116
Group employees	2,376	2,701	2,355	2,073	2,730
Proportion in %	3.1	3.6	5.0	5.7	4.2

T 12

### **DEVELOPMENT OF R&D EXPENSES**

	2010	2011	2012	2013	2014
Total R&D expenses (in m€)	19.2	27.2	49.1	26.5	29.0
Sponsored portion (in %)	11.5	14.5	10.7	27.5	25.4

T 13

### RESEARCH RATIO AND RESEARCH INTENSITY

in %	2010	2011	2012	2013	2014
Research ratio	1.5	2.6	8.2	5.8	5.1
Research intensity	1.6	1.6	3.7	3.4	3.7

T 14

[Research ratio = R&D expenses/revenue x 100] [Research intensity = R&D expenses/total expenses x 100]

<sup>\*</sup> Excluding temporary workers and students

### **ENVIRONMENTAL COMMITMENT**

A sustainable orientation is firmly rooted in the SolarWorld vision: "Sustainability is the basis for all our business activities." Our commitment remains strong despite tough competition and high cost pressure in the solar market, since this positioning is the core of the SolarWorld brand, and sets us apart from competitors. As a manufacturing company, we need to address four key environmental themes: energy, emissions, water and waste. We have set specific targets for cuts in these areas by 2020, which we intend to achieve by continuously improving our process efficiency and replacing substances that harm the environment. We measure our progress in terms of watt-peak production, i.e. how much energy, emissions, water and waste we can save per unit produced. Furthermore, we set an absolute emissions target for new cars in our vehicle fleet.

Owing to a fairly major yet unforeseen process modification, we achieved our target of a 15 percent reduction by 2020 in cumulated energy demand, groupwide  $CO_2$  emissions and our global warming potential far earlier than expected, in 2013. Because of this, we are now setting more challenging goals for the year 2020. A reduction in specific waste was not yet achieved because in Arnstadt single substances have a strong influence on the result, especially due to a not yet fully utilized production capacity. We had only limited control over the vehicle fleet emissions in 2014. From 2015, we will be able to control in this area better, as we will enter into a new leasing partnership.

### **ENVIRONMENTAL TARGETS 2020**

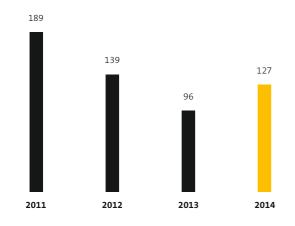
	Unit	Base year 2012	Target 2020/ percentage change	Actual 2014/ percentage change vs. 2012
Energy and climate protection				
Groupwide energy consumption	kWh/Wp	0.63	0.47 -25 %	0.50 -21%
Cumulated energy demand (life cycle)	MJ <sub>eq</sub> /Wp	21.6	16.2 -25 %	20.0 -8%
Groupwide CO <sub>2</sub> emissions	kgCO <sub>2eq</sub> /Wp	0.45	0.29 -35 %	0.31 -31%
Global warming potential (life cycle)	kgCO <sub>2eq</sub> /Wp	1.33	0.98 -25%	0.82 -37%
Average $CO_2$ emissions from passenger cars in the SolarWorld vehicle fleet (new passenger cars)	gCO <sub>zeq</sub> /km	152 (all cars)	95 -38%	139 -8%
Water	***************************************	***************************************		
Specific water consumption	m³/MWp	2,253	2,028 -10%	1,908 -15%
Specific volume of waste water	m³/MWp	1,738	1,564 -10%	1,689 -3%
Waste	••••••	•••••		
Specific volume of waste	t/MWp	26.9	24.2 -10%	28.8 +7%

T 15

Solar power generation helps reduce harmful greenhouse gas emissions and preserve fossil resources when it replaces these sources in the energy mix. Although energy is consumed to manufacture solar modules, our products generate far more energy over their life cycle than it takes to make them. Likewise, far more greenhouse gas emissions are avoided than are created in the entire manufacturing process.

**CO, EMISSIONS.** Since the Carbon Disclosure Project Germany was founded in 2005, we have been involved in capturing greenhouse gas emissions. Due to the raise in production our groupwide greenhouse gas emissions increased in 2014 to around 127 (2013: 96) thousand t  $CO_{260}$ .

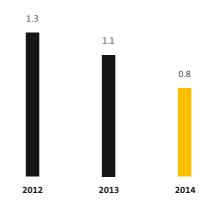
### GROUPWIDE CO2 EMISSIONS IN THOUSAND tCO2ea



We use the life cycle analysis to calculate the global warming potential (GWP) of our products (greenhouse gas emissions per production unit,  $CO_{2eq}/Wp$ ). We take emissions from the entire production process into account in the analysis, including preliminary stages and input factors. In 2014, our GWP stood at 0.8 (2013: 1.1) kgCO<sub>2eq</sub>/Wp.

SolarWorld does not use or emit any nitrogen trifluoride (NF<sub>3</sub>).

### GLOBAL WARMING POTENTIAL IN kg CO<sub>2eq</sub>/Wp



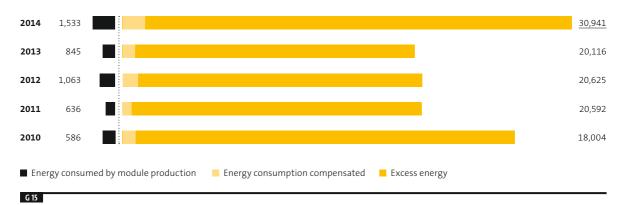
G 14

**PAYBACK TIMES.** The energy payback time is the amount of time it takes the solar power plant to produce as much energy as was used to manufacture it. Similarly, the  $CO_2$  payback time refers to the time it takes to compensate for the greenhouse gases that were emitted during manufacturing. Our calculations are cradle-to-gate calculations. SolarWorld's technological progress can be determined from the energy and  $CO_2$  payback times.

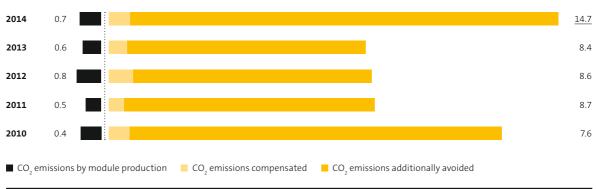
While it takes two years to compensate for the energy consumption of the entire production process of a system in Bonn, Germany (power yield: 940 kWh/kWp), it only takes less than a year in San Francisco, U.S. (power yield: 1,670 kWh/kWp). By comparison, the energy payback time was 3.5 years according to a study by ESU-services in 2008. CO<sub>2</sub> emissions are compensated for in less than two years in San Francisco, while it takes eleven years in Grenoble, France (power yield: 1,250 kWh/kWp) due to the high percentage of nuclear power in the French energy mix. These calculations come from our life cycle analysis for our solar modules (not including system components), installed on a roof with a southerly orientation and an optimum inclination with an average module lifespan of 30 years. Since new energy mix data are now available for the respective locations the values have changed in comparison to the previous reporting. Moreover, we include all production sites in the calculation.

G 13

#### **ENERGY BALANCE IN GWh**



### **CARBON FOOTPRINT IN M tCO**<sub>2eq</sub>



G 16

An overview of many locations around the world and additional information on the calculations is available on our website: 

www.solarworld.de/sustainability

**POSITIVE ENERGY AND CO. BALANCE.** Thanks to the volume of solar power modules sold in 2014, an energy surplus of 30,941 (2013: 20,116) GWh can be achieved during a lifetime of 30 years. Some 14.71 (2013: 8.41) million  $tCO_{2eq}$  can be saved as a result. The costs for environmental damage avoided total around  $\mathbf{\mathfrak{f}}$  1,029 (2013: 589) million. The  $CO_{2}$  emissions

avoided exceed the  $CO_2$  emissions caused along the entire production chain by a factor of 21 (2013: factor of 14).

Since we have no exact information about how and where our modules are installed, our calculations are based on a standardized installation in Germany (1,275 kWh/m²).

You can find more information about the respective model assumptions and the calculations under ► <u>Sustainability</u> in detail 2014.

### **EMPLOYEES**

In 2014, our continuing top priority in HR activities was to closely support and assist structural changes in the group. We placed particular emphasis on transferring operational measures from the previous year's restructuring program into new processes. A key task here was to provide training and support for employees and executives so that they could help shape these changes. This was facilitated by the groupwide Change Program. Here, all employees once again demonstrated exceptional commitment — providing further proof of SolarWorld's strong corporate culture.

NUMBER OF EMPLOYEES UP DUE TO ARNSTADT ACQUISITION. In 2014, we continued to closely monitor our HR requirements and make adjustments in line with cost structures. At the end of 2014, SolarWorld employed 2,730 (2013: 2,073) people, of whom 2,072 were employed on a permanent basis and 658 on temporary contracts. Overall, the number of employees increased by 31.7 percent, compared with the previous year. This increase is primarily due to the acquisition of production facilities in Arnstadt, as a result of which we gained around 750 employees.

As a result of the consolidation of sales and production departments at our Hillsboro site in the United States, the number of employees in the U.S. fell by 10.2 percent to 545 (2013: 607) not including temporary workers. Pooling our U.S. activities at this site has already made the group appreciably stronger and more competitive in the America region.

The number of temporary workers increased during the financial year to 677 (2013: 316) on account of significantly higher production capacity utilization. Using temporary staff gives us the flexibility we need for rapid and efficient adjustment of production volumes to market demand. Here we have worked successfully for many years with established temporary staffing companies.

All forms of employment are used depending on the company's needs and in accordance with the law. Flexible solutions such as working from home and virtual workplaces are offered, provided they are compatible with the job.

The attrition rate, which includes employee resignations and dismissals, improved in comparison with the previous year, falling for the second year in succession to 10.2 (2013: 16.6) percent. The goal of HR policy is to increase employee retention. This is achieved by creating opportunities within the group — such as promotions and career development — and by fostering a corporate culture that encourages long-term employee commitment.

**OPERATIONAL MEASURES FACILIATED BY CHANGE PROGRAM.** In 2014, we continued our Change Program, which has operated successfully since its launch in 2012. It has been closely connected to the numerous operational measures throughout the group. ► *Operational measures* − *p. 025* The chief goal of this program is to assist employees and executives in implementing

### **HEADCOUNT DEVELOPMENT AS AT DECEMBER 31**

Number of people	2013	2014	Change
Germany	1,447	2,161	+714
of which trainees	50	44	-6
U.S.	607	545	-62
Rest of the world	19	24	+5
Total	2,073	2,730	+657

T 16

the planned changes in the group with a results-oriented focus. This means making sure that defined targets are achieved in practice, as well as increasing employee retention. It is of crucial importance to us to recognize fears employees might have and adequately deal with any anxieties and resistance. Alongside managers, specially trained employees (Change Agents) are available as points of contact and moderated discussion groups have been set up. Employees are kept up to date with the latest developments via various channels. In addition to regular meetings within the teams, staff meetings and management information events have been organized on a monthly to biannual basis, depending on the priority at each location.

**FACILITATING STAFF DEVELOPMENT.** Our mission RISE comprises the four dimensions of our global teamwork: responsibility, innovation, sustainability and engagement. All HR strategy measures follow these guiding principles, they include, for example, our competence model. Our goal is to prepare employees and executives for current and future requirements. To make sure this happens, RISE is like a thread running through the SolarWorld group's entire training program.

We offer our employees various training options as well as individual career-development prospects that strengthen their commitment to SolarWorld. In a yearly career-development discussion, employees and their managers decide on personal-development goals and steps, including training. The training courses that we offer are tailored to the groupwide company goals and employees' individual needs.

Courses include targeted language learning as well as project management and IT training. In 2014, we spent € 0.36 (2013: 0.41) million on training. To facilitate employees' development in the company and improve their chances of internal promotion, we operate an internal jobs portal. This website allows employees to find out about job vacancies in the company at an early stage and apply for them within a protected period before the jobs are advertised externally.

FOSTERING TALENT. Employees who are identified by their managers as being particularly dedicated high-achievers have special development options open to them under our talent management program. The program aims to foster the professional and personal development of particularly talented employees and help them shape their careers. As a result, we improve our chances of appointing our own employees to specialist and management positions, thus benefiting from their wealth of experience and strong identification with SolarWorld. In line with group strategy, we focused on integrating the program more deeply with the group's internationalization activities. For example, to explore new possibilities for international collaboration, participants in the talent-management program convened at a global workshop, where one of their tasks was to produce recommendations for working in global virtual teams.

JUNIOR EMPLOYEES TRAINED. 22 (2013: 20) people at the beginning of their careers completed their training at our Freiberg and Bonn sites in 2014. The trainee ratio was 1.6 (2013: 2.4) percent. We hired 20 (2013: 18) trainees as permanent employees. We were especially pleased that one of our trainees who sat his exam with the chamber of commerce and industry passed with the best score in Germany. He completed his training in process mechanics in Freiberg. Training junior employees is an important goal for us—we still want to encourage communication between newcomers and experienced employees and open up career development paths. In 2014, we took on 15 (2013: 5) trainees, who work mainly in our IT department and in technical and commercial positions. In the future, we will offer training places at our Arnstadt site as well.

**GENDER EQUALITY.** In 2014, the proportion of women in the company stood at 25.2 (2013: 23.3) percent, similar level to the previous year. Women accounted for 9.1 (2013: 10.0) percent of our trainees. The number of women in management positions increased to 54 (2013: 49) or 17.5 (2013: 19.4) percent.

SolarWorld is striving to achieve a better gender balance in the group. This is a constant challenge, since the group's main focus is on the STEM subjects (science, technology, engineering, mathematics), in which women are still underrepresented in further and higher education, and hence also in the application process. As a first step, therefore, our aim is that the proportion of women in management positions should reflect the proportion of women in the group. We want to foster our employees' personal strengths and support them on their individual career paths. Our development support offerings are therefore aimed equally at women and men, with the result that women are appropriately represented in all training programs.

We recognize the challenge many of our employees face in balancing family and working life, which is why we design our working conditions to be as family-friendly as possible. For example, this includes flexible working hours and the possibility of working from home where feasible. Other measures are currently being planned, such as setting up more parent-child offices where parents can occasionally bring their children to work if necessary and look after them in a suitable environment.

**PROMOTING HEALTH AND SAFETY.** The safety and health of our employees and customers is particularly important to us. In our safety and health management, we follow the standards of ISO 9001 and ISO 14001 and a zero-accident strategy at all sites of the group. The accident rate in 2014 was 13.2 (2013: 12.5) per thousand employees. We also help our employees stay healthy and keep fit. At our Freiberg production site, the corporate health management team organizes three health days each year. Movement classes, such as back training, Pilates and yoga, are offered as well as fitness classes, various health check-ups and nutrition courses. In 2014, our employees jointly took part in company sports events such as the Bonn Marathon or the German "City Biking" campaign.

**EMPLOYEE PERFORMANCE-RELATED COMPENSATION.** In addition to their fixed salary, employees of SolarWorld receive a contractually agreed variable compensation depending on the achievement of pre-set targets in the respective fiscal year. Target figures partly refer to the SolarWorld group and partly to individual subsidiaries. In 2014, employees received variable compensations in a total amount of  $\in$  2.1 million. We want our employees to benefit from the company's performance in the future, too, and will therefore carry out an adjustment of variable salary components over the long term.

**POSITION SOLARWORLD AS A GREAT PLACE TO WORK.** We want to position SolarWorld as an attractive employer, both for our own employees and for prospective applicants. Our goal is therefore to maintain and foster our employees' great level of commitment as well as our open and cooperative corporate culture. At the same time, we are developing efficient global structures that support successful groupwide collaboration.

The results from two surveys of students in engineering and natural sciences show that despite the solar industry crisis, SolarWorld remains an attractive employer for many young people. The research institute Universum conducted a survey among 30,000 students at 140 universities to find the most attractive employers in Germany. Natural science students voted SolarWorld into 30th place among the top 100 employers in Germany – this was seven places higher than in 2013. Budding engineers ranked SolarWorld 29th. The "trendence Graduate Barometer" 2014 shows similar results. Engineering students voted SolarWorld the 53rd most popular employer in Germany.

**STRENGTHEN CONTACT WITH RESEARCH AND TEACHING.** To ensure knowledge transfer between research and industry and bring new knowledge into the group, we have maintained contacts with universities and research institutes for many years. This is particularly true of our largest site at Freiberg, where we cooperate extensively with TU Bergakademie Freiberg. We conduct joint research projects, give lectures for the photovoltaics master's degree program, and are involved in the postgraduate photovoltaics school, which we helped set up. In addition to our own doctoral candi-

dates, we support academic research by Ph.D. and master's students at many universities.

Aside from TU Bergakademie Freiberg, we work with various other universities and research institutes in Germany and around the world. Our experts in research and production regularly give lectures in Germany and other countries. In this way, we can convey an industry point of view and establish a close link between theory and practice.

### **ECONOMIC POSITION 2014**

### **EARNINGS POSITION**

### **DEVELOPMENT OF REVENUE AND PROFIT OR LOSS**

During the 2014 fiscal year, SolarWorld increased its group-wide shipments by 48.5 percent to 873 (2013: 588) MW. Our groupwide foreign shipments quota for 2014 increased by 9 percentage points to 86 (2013: 77) percent on the back of strong growth outside Germany. In the fourth quarter of 2014, overall shipments rose by 52.8 percent to 246 (Q4 2013: 161) MW.

Shipments of solar modules and kits in the "Trade" segment grew 55 percent to 849 (2013: 548) MW. The group therefore substantially beat its forecast of increasing groupwide shipments of modules and kits by at least 40 percent. We achieved strong growth particularly in the United States, where we managed to nearly double our shipments, compared with the same period last year. This market accounted for 41.3 percent of our modules and kits. In the European markets of France and the United Kingdom as well as in Japan, SolarWorld's shipments grew considerably, too. In the

German solar market, which shrank significantly compared with the previous year, SolarWorld bucked the market trend in 2014 and managed to slightly grow in its core business — sales of modules and kits excluding large-scale turnkey projects. ► Trade — p. 037

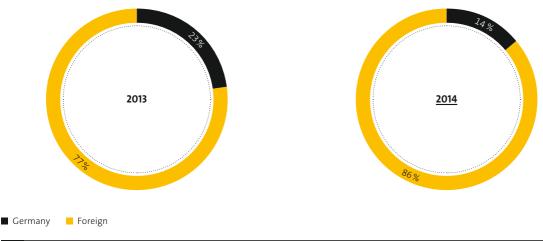
External sales of solar wafers in 2014 totaled 24 (2013: 40) MW.

Consolidated revenue in 2014 totaled € 573.4 (2013: 455.8) million, an increase of 25.8 percent or € 117.6 million on the previous year. The proportion of foreign revenue rose 12.5 percentage points to 83.1 (2013: 70.6) percent. In the "Trade" segment, we achieved an increase of 28.5 percent or € 124.1 million to € 559.7 (2013: 435.6) million. Owing to lower wafer shipments, revenue in the "Production Germany" segment fell € 5.4 million to € 12.8 (2013: 18.2) million. SolarWorld AG announced at the end of July 2014 that it would not reach its target of increasing consolidated revenue to more than € 680 million in 2014. This development was due mainly to shifts in the product

#### **DEVELOPMENT OF SHIPMENTS**

Shipments in MW	2013	Q1 2014	Q2 2014	Q3 2014	Q4 2014	2014
Modules and kits ("Trade" segment)	548	140	193	270	246	849
Wafers ("Production Germany" segment)	40	14	10	0	0	24
Total	588	154	203	270	246	873
T17						

#### SHIPMENTS DIVIDED INTO DOMESTIC AND FOREIGN SALES



G 17

mix of shipments in the "Trade" segment, which were not foreseeable at the beginning of 2014. Module shipments performed well, whereas sales of kits and systems came in below target and declined, compared with the previous year. The main reason for this was the shift in shipments between our regional markets: the German market remains the main focus for our kit business, which generates higher revenues. We gained market share here in 2014, but did not expand total shipments as much as planned. Furthermore, to reduce financial risks and avoid tying up cash we did not engineer or implement new turnkey large-scale projects during 2014 in contrast to original plans. This too slowed down revenue growth.

Consolidated earnings before interest, taxes, depreciation and amortization (EBITDA) improved in 2014 by € 254.6 million to € 107.8 (2013: -146.8) million.

Adjusted EBITDA amounted to  $\in$  1.6 million in 2014. One-off effects include a profit (badwill) of  $\in$  136.5 million resulting from the acquisition of solar activities from Bosch, as well as impairment losses on repayment claims and prepayments of  $\in$  30.3 million resulting from a commercial agreement with a raw material supplier. Because of the shifts in our product mix mentioned above and the fact that we put the realization of turnkey large-scale projects aside, we were not

able to fulfill our original forecast to achieve an adjusted EBITDA of more than € 10 million. Accordingly, we adjusted our forecast in the report on the first half of 2014.

In the "Trade" segment, EBITDA increased in 2014 by € 43.8 million to € -13.3 (2013: -57.1) million. EBITDA also increased in the "Production U.S." segment, by € 20.5 million to € -8.4 (2013: -28.9) million. In the same period, EBITDA in the "Production Germany" segment improved by € 195.9 million to € 121.0 (2013: -74.9) million. Adjusted for the one-off effects mentioned above, EBITDA in the "Production Germany" segment totaled € 14.8 million. As expected, the costs of the production ramp-up at our site in Arnstadt, Germany, burdened EBITDA from the second until the fourth quarter of 2014. SolarWorld Industries Thüringen GmbH acquired production lines towards the end of the first quarter of 2014 and started the gradual ramp-up afterwards. In the fourth quarter, we were able to significantly increase capacity utilization, which led to a continuous reduction in ramp-up costs, compared with the second and third quarters of 2014.

In accordance with IAS 36, impairment tests of fixed assets were conducted at the end of the period, which resulted in the need to recognize impairment losses of  $\le$  0.7 (2013: 0) million.

#### **REVENUE BY SEGMENT IN MIO €**



G 18

Consolidated earnings before interest and taxes (EBIT) improved in 2014 to  $\leqslant$  62.4 (2013: -188.7) million. Adjusted for the one-off effects mentioned above, groupwide EBIT for 2014 came to  $\leqslant$  -43.8 million. In line with EBITDA, we were unable to reach our original target to achieve an adjusted EBIT in a range of  $\leqslant$  -35 million to  $\leqslant$  -25 million due to shifts in our product mix and the fact we put the realization of turnkey large-scale projects aside.

In the "Trade" segment, EBIT in 2014 rose to € -15.4 (2013: -59.6) million. We also significantly improved our operating result, compared with the previous year, in the "Production Germany" and "Production U.S." segments. In the "Production U.S." segment, EBIT increased to € -21.0 (2013: -39.9) million. In the "Production Germany" segment, compared with the previous year, EBIT was up € 193.6 million to € 96.4 (2013: -97.2) million. Adjusted for the one-off effects mentioned above, EBIT in the "Production Germany" segment totaled € -9.8 million.

The groupwide financial result in 2014 came to € 510.3 (2013: -76.7) million. This includes the restructuring profit of € 555.7 million resulting from the financial restructuring. After offsetting the existing tax loss carryforwards and

taking into account the granted tax release, SolarWorld AG does not need to pay taxes on income for this restructuring profit.

The group's net profits after taxes for 2014 were up € 692.5 million to € 464.2 (2013: -228.3) million.

## DEVELOPMENT OF MATERIAL INCOME STATEMENT LINE ITEMS

In the 2014 fiscal year, the cost of materials rose by € 150.2 million to € 422.9 (2013: 272.7) million. This was mainly due to significant year-on-year manufacturing output growth, especially taking into account the start of production at our new site in Arnstadt, Germany. As a result of the output increase as well as further cost optimizations in purchasing and production processes, however, the cost of materials ratio fell to 69.2 (2013: 74.8) percent.

Personnel expenses rose by € 25.9 million to € 138.3 (2013: 112.4) million. Here, the increase can be attributed to the takeover of about 750 employees due to the ramp-up of our production site in Arnstadt, Germany. The personnel cost ratio fell to 22.6 (2013: 30.8) percent due to higher overall output.

#### FIVE-YEAR COMPARISON OF INCOME POSITION

in k€	2010	2011	2012	2013	2014
Revenue	1,304,674	1,044,935	606,394	455,821	573,382
Change in inventories	8,434	72,054	-64,666	-91,925	36,328
Own work capitalized	1,025	14,349	65	542	1,438
Other operating income	100,791	260,499	166,459	59,287	232,784
Operating performance	1,414,924	1,391,837	708,252	423,725	843,932
Cost of materials	-834,780	-819,152	-534,568	-272,666	-422,938
Personnel expenses	-126,282	-138,224	-129,378	-112,366	-138,281
Amortization and depreciation	-88,503	-452,514	-417,564	-41,877	-45,440
Other operating expenses	-172,607	-225,805	-247,066	-185,480	-174,898
Operating result	192,752	-243,858	-620,324	-188,664	62,375
Financial result	-44,131	-59,492	-67,489	-76,739	510,274
Taxes of income	-61,309	-5,592	81,522	37,097	-108,485
Result from discontinued operations (after tax)	0	1,808	0	0	0
Consolidated net result	87,312	-307,134	-606,291	-228,307	464,164

T 18

### INDICATORS OF INCOME POSITION

in %	2010	2011	2012	2013	2014
Return on sales (Consolidated net result/revenue)	6.7	n.a.	n.a.	n.a.	80.9
Cost of materials ratio (Cost of materials/revenue + changes in inventory and own work capitalized)	63.5	72.4	98.7	74.8	69.2
Personnel expenses ratio (Personnel expenses/revenue + changes in inventory and own work capitalized)	9.6	12.2	23.9	30.8	22.6

T 19

Depreciation and amortization increased in 2014 compared to the previous year by 8.5 percent or  $\in$  3.5 million to  $\in$  45.4 (2013: 41.9) million. The increase is due to the integration of our new production site in Arnstadt and unscheduled amortization and depreciation of individual assets.

Other operating expenses decreased in the 2014 fiscal year by € 10.6 million to € 174.9 (2013: 185.5) million. This figure includes impairment losses on prepayments and repayment claims in the amount of € 30.3 (2013: 76.0) million resulting from an agreement with a raw material supplier. Because of the significant increase in the production and sales volume, there was also an increase in expenses for the use of external personnel and distribution expenses. Maintenance expenses rose further, while costs for legal fees, consultancy

and audit expenses fell. The expense ratio in the 2014 fiscal year was 28.6 (2013: 50.9) percent.

Compared with the previous year, other operating income increased by  $\in$  173.5 million to  $\in$  232.8 (2013: 59.3) million. This increase is attributable in particular to a profit resulting from the initial accounting for assets acquired from Bosch ( $\in$  136.5 million). Other operating income increased by  $\in$  27.1 million due to sales of excess raw materials. Corresponding expenses amounting to  $\in$  26.9 million are recorded as other operating expenses. Furthermore, positive earnings effects in an amount of  $\in$  18.3 million resulting from the termination of long-term supply contracts with wafer customers were recorded.

#### FINANCIAL POSITION

#### PRINCIPLES AND OBJECTIVES OF FINANCIAL MANAGEMENT

SolarWorld AG conducts group financial management centrally, which enables us to distribute financial resources efficiently within the group. Controlled directly by the Management Board, the financial management team is responsible for group liquidity planning and controlling, raising capital and hedging against interest rate, currency and price risks.

We align our financial management with the requirements of our operational business in the short and medium term and with our corporate strategy in the long term. The central task for financial management is to ensure sustained liquidity protection and flexibility, while minimizing capital costs and financial risks.

Our financial liabilities consist mainly of bonds and structured loans. For the most part, these run until 2019 and are secured by group assets. Follow-up financing will not be necessary until 2019 at the earliest.

On a daily basis, central cash management invests liquidity positions almost exclusively in fixed deposits (day-to-day, weekly and monthly deposits) in the public and private German banking sector. Derivative financial instruments are used only as hedging instruments. • Note 40b Principles and objectives of financial risk management – p. 159 An overview of long-term loans and repayment arrangements appears in the notes. • Note 40e Liquidity risks – p. 161

#### **FINANCING ANALYSIS**

As compared to December 31, 2013, equity increased substantially by  $\in$  481.8 million to  $\in$  238.7 (December 31, 2013: -243.1) million. This is due primarily to the successful completion of the financial restructuring program and associated capital increase by contribution in kind. The equity ratio improved to 26.1 percent as at the cut-off date.

The measures implemented as part of the financial restructuring enabled us to reduce our financial liabilities as at December 31, 2014 to € 449.9 (December 31, 2013: 1,022.1) million. On December 31, 2014, as a result of restructuring our financial liabilities, most of our financial liabilities (87.0 percent) are now once again classified as non-current (December 31, 2013: 52.5 percent).

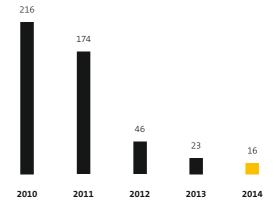
Investment grants and subsidies recognized in non-current liabilities decreased to  $\in$  29.1 (December 31, 2013: 31.1) million as at the cut-off date. These public funds accrued on the liabilities side of the balance sheet are reversed over the period of utilization of subsidized investments through profit or loss.

Non-current provisions increased in the 2014 fiscal year by € 4.4 million to € 33.8 (December 31, 2013: 29.4) million. This is mainly due to the significantly higher shipments and associated increase in provisions for guarantees and to increased pension provisions.

#### **INVESTMENT ANALYSIS**

In the 2014 fiscal year, we invested a total of € 16.4 (2013: 22.8) million in intangible assets and property, plant and equipment. About € 4.4 million was invested in the "Production Germany" segment at our German sites, thereof € 1.1 million went to our wafer production. Further € 3.3 million were invested in our German cell and module production. In addition, € 5.9 million were invested in the "Trade"

#### **DEVELOPMENT OF INVESTMENTS** IN M €



G 19

segment, mainly to enhance our IT systems. Further € 5.3 million went to the "Other" segment. Furthermore, as part of an asset deal, we took over manufacturing facilities and other assets from Bosch Solar Energy AG with net fair values amounting to € 72.7 million. The acquisition increased SolarWorld's production capacities at the cell and module manufacturing stages of the value chain.

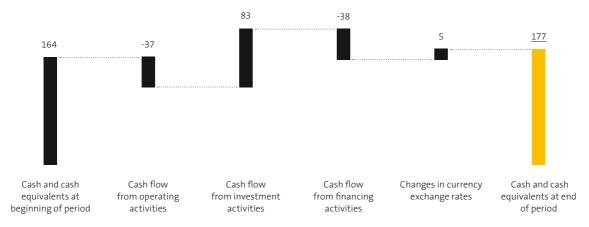
#### LIQUIDITY ANALYSIS

Cash flow from operating results was impacted negatively by production ramp-up costs of the subsidiary SolarWorld Industries Thüringen GmbH and totaled € -10.6 million in 2014. In addition, the increased production and sales volume led to a rise in working capital. Thus, cash flow from operating activities fell to € -36.7 (2013: 17.3) million in 2014.

Cash flow from investing activities amounted to € 82.7 (2013: -23.9) million. This change is mainly the result of cash receipts amounting to € 81.0 million, arising from the negative purchase price agreed for taking over a large proportion of the manufacturing facilities of Bosch Solar Energy AG. Furthermore, SolarWorld obtained € 8.3 million in investment grants. Additional cash receipts resulted mainly from the disposal of fixed assets from the photovoltaic portfolio of Solarparc GmbH. Investments of € 12.4 (2013: 24.2) million in fixed assets had a negative impact on cash flow.

Cash flow from financing activities improved to € -38.1 (2013: -52.2) million on the cut-off date. This was particularly affected by measures relating to the financial restructuring program. After completion of its financial restructuring in 2014, SolarWorld made scheduled repayments of financial liabilities amounting to € 61.4 million and paid interest and

#### **CASH FLOW RECONCILIATION IN M €**



G 20

#### FIVE-YEAR COMPARISON OF FINANCIAL POSITION

Capital in k€	Dec 31, 2010	Dec 31, 2011	Dec 31, 2012	Dec 31, 2013	Dec 31, 2014
Equity	914,372	614,391	-11,409	-243,084	238,668
Non-current liabilities	1,340,349	1,339,273	634,669	600,022	508,974
Current liabilities	341,637	282,108	568,970	574,897	167,699
Total	2,596,358	2,235,772	1,192,230	931,835	915,341

#### FINANCIAL POSITION INDICATORS

in %	2010	2011	2012	2013	2014
Return on equity (consolidated net income/equity)	9.5	n.a.	n.a.	n.a.	194.5
ROCE (key date) (EBIT/capital employed*)	14.4	n.a.	n.a.	n.a.	12.7
First degree liquidity (liquid funds + other financial assets/current liabilities)	2.1	2.1	0.7	0.4	1.4
Second degree liquidity (liquid funds + means available on short notice/current liabilities)	2.6	2.8	0.8	0.6	2.0
Third degree liquidity (current assets/current liabilities)	3.6	4.1	1.2	0.8	3.0

T 21

restructuring expenses totaling € 28.7 million. SolarWorld also took out a loan of € 50.0 million from Qatar Solar Technologies Q.S.C. As at December 31, 2014, liquid funds stood at € 177.1 (December 31, 2013: 163.7) million.

#### **ASSET POSITION**

#### **ASSET STRUCTURE ANALYSIS**

Compared with December 31, 2013, SolarWorld group's total assets decreased by € 16.5 million to € 915.3 (December 31, 2013: 931.8) million.

Non-current assets decreased by € 71.0 million to € 412.0 (December 31, 2013: 483.0) million. The main reason for this development was the use of deferred tax assets from tax loss carryforwards in 2014. Particularly because of the acquisition of solar activities from Bosch, property, plant and equipment increased in the first quarter of 2014 to

€ 344.7 (December 31, 2013: 306.9) million. An opposing effect resulted from the sale of assets from the photovoltaic portfolio of Solarparc GmbH in the third quarter of 2014.

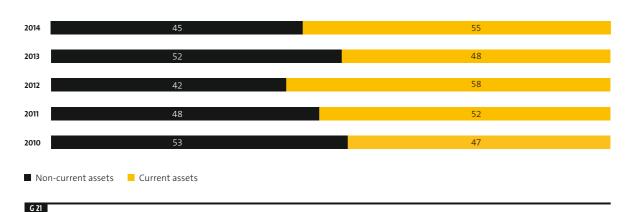
Inventories (excluding short-term advance payments made) increased as at the cut-off date, December 31, 2014, by € 33.9 million to € 136.1 (December 31, 2013: 102.2) million. At the same time, trade receivables rose by € 27.0 million to € 75.9 (December 31, 2013: 48.9) million. All in all, working capital rose by € 36.1 million to € 169.7 (December 31, 2013: 133.6) million. On the cut-off date, assets held for sale totaled € 9.0 (December 31, 2013: 7.0) million. The increase of € 2.0 million resulted from the intended sale of a piece of land in the U.S. and from the acquisition of production facilities and other assets from Bosch Solar Energy AG. The sale of a property in the fourth quarter of 2014 had a opposing effect.

<sup>\*</sup> Intangible assets and property, plant and equipment less accrued investment grants plus net current assets except for current net liquidity

#### FIVE-YEAR COMPARISON OF THE ASSETS POSITION

Assets in k€	Dec 31, 2010	Dec 31, 2011	Dec 31, 2012	Dec 31, 2013	Dec 31, 2014
Non-current assets	1,364,377	1,068,447	501,001	483,003	412,044
Current assets	1,231,981	1,167,326	689,917	441,800	494,270
Assets held for sale	0	0	1,312	7,032	9,027
Total assets	2,596,358	2,235,773	1,192,230	931,835	915,341
T 22					

#### **ASSETS POSITION INDICATORS IN %**



### ASSETS POSTION INDICATORS

in %	Dec 31, 2010	Dec 31, 2011	Dec 31, 2012	Dec 31, 2013	Dec 31, 2014
Equity ratio (Equity/total assets)	35.2	27.5	n.a.	n.a.	26.1
Investment intensity (Non-current assets/total assets)	52.5	48.4	42.0	51.8	45.0
First degree equity-to-fixed assets ratio (Equity/non-current assets)	0.7	0.6	n.a.	n.a.	57.9
Second degree equity-to-fixed assets ratio (Equity + non-current liabilities/non-current assets)	1.7	1.8	1.2	0.7	1.8

#### **OFF BALANCE SHEET FINANCIAL INSTRUMENTS**

Off balance sheet financial instruments have no impact on the group's asset position.

#### **ASSETS NOT SHOWN IN THE BALANCE SHEET**

The group had no assets not shown in the balance sheet as at December 31, 2014.

# **SUPPLEMENTARY REPORT**

# DISCLOSURE AND IMPACT OF EVENTS OF PARTICULAR IMPORTANCE

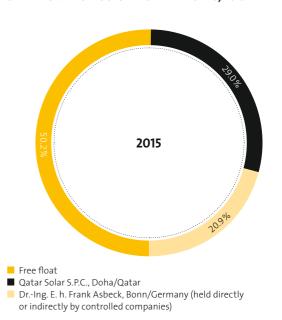
SOLARWORLD REPRESENTED IN JAPAN WITH ITS OWN SALES OFFICE. On January 5, 2015, SolarWorld AG formed a subsidiary company named SolarWorld Japan K.K., with an office in Tokyo. As a result, SolarWorld will be present with its own sales office in the growing Japanese market from now forward. ► Future sales markets − p. 085

**U.S. IMPORT DUTIES IN FORCE ON SOLAR PRODUCTS FROM CHINA AND TAIWAN.** On January 21, 2015, the U.S. International Trade Commission (ITC) made a final decision in SolarWorld's second set of trade cases to impose U.S. anti-dumping and anti-subsidy duties on imports of solar products from China and Taiwan. The ITC found injury to the U.S. industry, approving combined duties of about 75 percent for most Chinese imports, and 20 percent for most Taiwanese imports, which the U.S. Department of Commerce had issued in December 2014. ► *International trade disputes — p. 036* The duties came into force on February 1, 2015. The adopted measures complement the existing duties of about 29 percent on solar cells from China and modules incorporating these cells and make it virtually impossible to avoid these duties.

**SALE OF PROPERTY AT HILLSBORO SITE.** In January 2015, SolarWorld Americas Inc. sold a piece of vacant land at our Hillsboro site. Due to contractual credit agreements with creditors of SolarWorld AG, this sale led to a special repayment of financial liabilities of SolarWorld AG in an amount of € 4.6 million. The special repayment will be made along with the next planned payment of interest at the end of the first quarter of 2015.

SHAREHOLDER STRUCTURE CHANGED. In February, Strategic Value Master Fund Ltd. and a number of its controlling companies announced that their respective share of capital stock with voting rights had dropped below the threshold of 3 percent of the capital stock of SolarWorld AG. Consequently, the share of voting rights held by Victor Khosla, who as Chief Investment Officer controls the companies within the Strategic Value Partners group, fell first below 5 and subsequently below 3 percent. SolarWorld AG published the corresponding voting rights announcements pursuant to §26 of the German Securities Trading Act (WpHG). A summary is available on the company's website at www.solarworld.de/notification-of-voting-rights

#### **SHAREHOLDER STRUCTURE AS AT MARCH 16, 2015**



G 22

AG as a further loan.

**ADDITIONAL EQUITY FUNDING TO JOINT VENTURE QATAR SOLAR TECHNO-LOGIES Q.S.C.** In January 2015, Qatar Solar Technologies Q.S.C. called for an additional equity funding of \$ 11.6 million. The claimed obligation to contribute equity is based on a shareholder agreement to this effect. According to the agreements from the financial restructuring the obligation will be paid by Qatar Solar S.P.C. and granted to SolarWorld

**FEASIBILITY STUDY WITH POSITIVE RESULT.** In March 2015, the Solar-World Industries Thüringen GmbH concluded its feasibility study on the manufacturing of monocrystalline solar ingots. The results of the study were positive. Thus, the SolarWorld group has decided to start producing crystals for the manufacturing of wafers at its Arnstadt site. The production systems will be gradually put into operation, starting in the second quarter of 2015. The planned yearly production capacity amounts to 500 MW. ► <u>Future development in production − p. 087</u>

# OVERALL STATEMENT BY THE MANAGEMENT BOARD ON THE ECONOMIC POSITION AT THE TIME OF THE REPORT

The management of SolarWorld AG rates the economic position of the group as difficult. This assessment is based on the earnings, financial and asset position resulting from the consolidated financial statements for 2014 as outlined above, and ongoing business trends in 2015 at the time of drawing up this group management report. Although the

financial restructuring of SolarWorld AG was completed on February 24, 2014, the group is in a challenging position because consolidation in the solar industry is still ongoing and, moreover, the possibility of difficulties affecting the implementation of the planned operational restructuring measures cannot be ruled out.

# GROUP MANAGEMENT REPORT FORECAST

#### **067 RISK REPORT**

- 067 Opportunity and risk-management system
- 069 Internal control and risk-management system in relation to the group accounting process
- 070 Individual risks
- 080 Overall statement by the Management Board on the group's risk position

#### **081 OPPORTUNITY REPORT**

- 081 Opportunities from the development of general conditions
- 081 Strategic opportunities
- 082 Performance-related opportunities

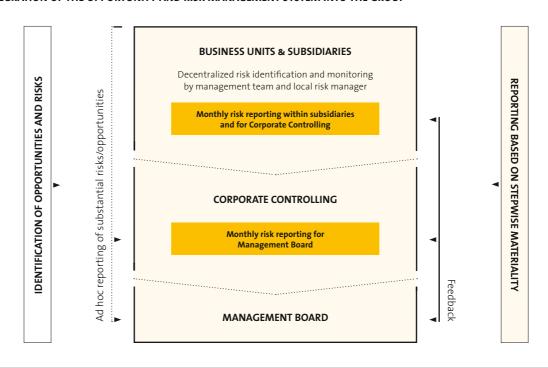
#### **083 FORECAST REPORT**

- 083 The future market 2015+
- 085 Future strategic alignment of the group
- 085 Expected business development 2015
- 089 Expected earnings and financial position
- 090 Overall statement by the Management Board on the expected development of the group

# **RISK REPORT**

### **OPPORTUNITY AND RISK-MANAGEMENT SYSTEM**

#### INTEGRATION OF THE OPPORTUNITY AND RISK MANAGEMENT SYSTEM INTO THE GROUP



G 23

An opportunity and risk-management system is necessary to promptly identify and analyze risks and as far as possible proactively introduce counter-measures. It is equally important to identify and exploit market opportunities at an early stage. With our opportunity and risk-management system, we aim to safeguard the group's ongoing existence in the long term and enhance corporate value.

Based on the corporate strategy, the Management Board defines the essential features of the risk policy and manages the company accordingly. Corporate controlling, which is

responsible for global opportunity and risk reporting, together with local risk managers supports the Management Board in assessing the probability of occurrence and effect on earnings of major opportunities and risks. The opportunity and risk-management system has the core task of identifying those risks that, if they were to occur, could result in a significant deviation from planned financial control indicators. It should also enable us to identify opportunities at an early stage that could lead to an improvement in business development.

All fully consolidated companies in the SolarWorld group are included in the opportunity and risk management system. Responsibility for identifying and monitoring risks primarily resides locally with managers in the first and second management levels. They are assisted by local risk managers, who produce monthly opportunity and risk-management reports for corporate controlling. This reporting is produced taking materiality limits into account in respect to the impacts of opportunities and risks on revenue, the liquidity position and EBITDA. Materiality limits increase with levels of responsibility. They are defined, reviewed annually and adjusted where necessary by the Management Board, taking the acceptable overall risk level into account. In the case of risks and opportunities considered to have a highly material potential impact, reporting takes place immediately and directly to the Management Board.

Corporate controlling makes local opportunity and risk reports available to the Management Board in a consolidated fashion. In addition, the Management Board is continuously

informed about current market trends and receives regular competitor analyses. The Management Board assesses all options available to the company to counteract identified risks and exploit potential opportunities. The measures to be introduced are defined, implemented and controlled within the relevant departments or companies, with the involvement of local business management and local risk managers. Depending on the materiality limit, the Management Board may also be involved. Insurance policies are taken out to transfer or minimize potential risks where possible and economically justifiable.

In weekly meetings, the Management Board discusses material opportunities and risks, examines trends and deliberates on measures to be implemented. In the case of risks threatening the existence of the company, the Management Board consults the Supervisory Board.

The internal corporate audit monitors the opportunity and risk-management system. New findings resulting from the audit are taken into account.

# INTERNAL CONTROL AND RISK-MANAGEMENT SYSTEM IN RELATION TO THE GROUP ACCOUNTING PROCESS

The aim of the internal control and risk management system with regard to the (group) accounting process is to make sure that accounting is uniform and in line with legal requirements, generally accepted accounting principles, the International Financial Reporting Standards (IFRS), as to be applied in the European Union and internal group guidelines so as to provide recipients of the consolidated financial statements with true and reliable information. To this end, SolarWorld AG has principles, processes and measures in place whose essential characteristics can be described as follows:

Within the SolarWorld group, there is a clear-cut management and enterprise structure in which the various group companies enjoy a large measure of independence and individual responsibility. Based on this structure, however, the functions of finance and accounting, controlling and investor relations essential to the accounting process are controlled throughout the group by corresponding departments.

The functions and responsibilities of finance and accounting, controlling and investor relations are clearly separated and allocated mutual control processes that assure a continuous exchange of information.

Some of the most important basic principles of the internal control system are the separation of functions and adherence to guidelines, along with defined preventive and monitoring control mechanisms such as systematic and manual coordination processes and predefined approval processes.

The financial systems used are protected against unauthorized access by appropriate installations in the IT system. We use standard software wherever possible.

Uniform accounting is guaranteed in particular by accounting guidelines that apply groupwide and by a standardized reporting format. The guidelines and the reporting format are regularly reviewed and updated by members of the group accounting department.

Group companies prepare their financial statements locally and communicate these in the prescribed format to group accounting. The companies themselves are responsible for adherence to group accounting guidelines as well as the proper and timely management of all accounting-related processes and systems. In this context, they are fully supported by group accounting throughout the entire accounting process.

Group accounting monitors adherence to the accounting guidelines as well as to time and process requirements. In addition to systems technology controls, manual controls and analytical audit procedures are in place. Here, the appropriate control environment is taken into consideration as much as the relevance of certain accounting facts regarding the contents of the financial statements.

Group accounting acts as the central point of contact for special technical questions and complex accounting issues. If required, external experts (auditors, qualified accounting specialists etc.) will be consulted.

On the basis of data supplied by the group companies, consolidation takes place centrally in group accounting. In general, as a minimum, the principle of dual control applies at every level.

Independently of group accounting, corporate controlling carries out a monthly analysis of target-actual and actual-actual deviations based on groupwide reporting, as a result of which an examination of major or implausible changes takes place at an early point in time.

### INDIVIDUAL RISKS

#### **LEGEND**

Risk a	ssessment
$\uparrow$	Up versus previous year
<b>\</b>	Down versus previous year
$\rightarrow$	Flat versus previous year

Time horizon of effects	
Short-term	One to three years
Medium-term	Three to five years
Long-term	More than five years

**PRELIMINARY NOTE:** For the purposes of risk analysis and the disclosed counter-measures, we do not distinguish between the reportable operating segments "Production Germany" and "Production U.S." in our in-house production, except in the case of risk factors which need to be assessed

differently by region. Counter-measures may serve to reduce the risk (*reduce*), transfer the risk to third parties (*transfer*), e.g. by taking out insurance, or consciously assume the risk (*assume*).

#### MACRO-ECONOMIC RISKS →

#### Risks

- 1. Weak economic development: tighter financing terms and unstable economic conditions; lower private consumption; increased inflation risk
- 2. Falling domestic electricity prices: delays in solar power becoming competitive / reaching grid parity; slowdown in tapping new markets

#### **Probability**

- 1. Medium: The existing levels of national debt in a number of countries in the eurozone may further threaten the stability of the euro. Geopolitical conflicts in Eastern Europe and the Middle East could also have a negative impact on our economic and financial position. Weak economic development may reduce the private sector's propensity to invest. Overall, the world economy improved in 2014, with the result that we believe there is a medium probability of this risk occurring.
- 2. Medium: Falling costs of primary sources of energy are not being passed on to electricity consumers, with the result that declining oil prices have no impact on the price households pay for electricity. Furthermore, energy prices should rise in the medium term on the basis that energy demand will continue to grow.

#### Effect (strength, time horizon)

- 1. Medium, short-term to long-term: A decline in the general propensity to invest might have a medium effect on our group revenues and earnings. Large-scale projects would be relatively most greatly affected by a tougher financing environment, since in the short term, credit bottlenecks could occur for large-scale investment projects and especially for project financing.
- 2. Medium, medium-term: Over the medium term, domestic electricity prices will affect our business since end customers may choose between self-produced solar power or power from a utility company, i.e. the electricity generation costs of a solar power system are compared with domestic electricity prices.

#### **Counter-measures**

- Trade: Our internationalization helps us spread the risk of a decline in consumption among various regional markets. (reduce)
- Trade: By offering a diversified range of products, we appeal to various customer groups to spread the financing risk and compensate for shifts in demand. (*reduce*) ► Future sales markets p. 085
- All segments: Due to ongoing cost reductions and efficiency enhancements along the entire value chain, electricity production costs of a SolarWorld system undercut domestic electricity prices in a number of markets and continue to get closer elsewhere. (assume)

#### POLITICAL AND REGULATORY RISKS ↓

#### Risks

- 1. Changes in laws promoting solar power: slower market growth due to a reduction in or even abolition of financial incentives in individual countries
- 2. Discontinuation of countervailing duties in the U.S. and in the EU: Unfair trade practices would no longer be monitored and sanctioned; rapid price decline due to dumping

#### **Probability**

- 1. Medium: Economic incentives for new solar technology installations are regularly reviewed by policymakers and in many cases reduced in important sales markets for the SolarWorld group such as the United States, Germany, Italy, France, the United Kingdom and Japan.

  ► The future solar power market − p. 083
- 2. Medium: On February 1, 2015 new anti-dumping and countervailing duties came into force in the United States, which complement the existing duties on solar products imported from China. These determinations will be effective for the next five years. The level of the U.S. duties is revised every 18 months. Anti-dumping and countervailing duties have also been imposed in the European Union; they will be in force until December 2015. ► Supplementary Report p. 063

#### Effect (strength, time horizon)

- 1. High, short-term to medium-term: Declines in demand due to changes in the regulatory framework in individual regions may impact on our revenues and earnings. As long as grid parity has not been achieved in individual markets, SolarWorld will be exposed to this risk.
- 2. High, short-term to long-term: Massive price decline due to dumping could significantly diminish our sales volumes or make it impossible for us to sell our products at a cost-covering price level. This would affect our revenues and result.

#### Counter-measures

- Trade: We spread this risk across several markets by means of our international presence. (reduce) > Future sales markets p. 085
- All segments: Continuous cost reductions and efficiency enhancements facilitate faster achievement of grid parity and thus progressive independence from incentives with long-term competitive pricing. (assume)
- All segments: We engage in dialog with politicians and society, are active in several industry associations and are committed at a socio-political level to increasing the percentage of photovoltaics in the energy supply and to restoring fair competition in the solar industry. (assume)

#### T 25

#### RISKS ARISING FROM ALTERNATIVE SOLAR POWER TECHNOLOGIES $\rightarrow$

#### Risks

Technological breakthrough or sharp cost reductions in alternative solar power technologies: risk of substitution for crystalline technologies

#### Probability

**Low:** Due to continuing low prices for crystalline solar products, few manufacturers of alternative solar power technologies have cost benefits versus crystalline manufacturers. This particularly applies to the roof-mounted systems market as alternative solar power technologies only have low module efficiency, making optimum use of limited roof space more difficult.

#### Effect (strength, time horizon)

**Medium, long-term:** Successful competitors might reduce our market share, increase price competition, and thus place stronger pressure on margins. This might adversely affect our revenues and earnings.

#### Counter-measures

**Production; Other:** analysis of technological trends; competitor analyses; intensive and continuous research and development to increase efficiency and optimize costs; partnerships with universities and research institutes (assume)

► Opportunity and risk management system – p. 067

#### RISKS FROM TOUGHER COMPETITION →

#### Risks

**Intensification of competitive pressure:** Continuation of consolidation at all stages of the value chain in the solar industry; increased competition from state-sponsored manufacturers; unfair pricing practices; excess capacities; dumping

#### **Probability**

**High:** Although the consolidation wave is slowing down, competitive pressure persists and could prevent a lasting stabilization of sales prices. In spite of legal measures (anti-dumping and countervailing duties and undertaking concerning minimum prices) in the U.S. and EU against violations of international trade law, the danger of unfair competition still exists above all outside these regions. It rises as some market players sell below production costs on a long-term basis to drive competitors out of the market. ► *The future solar power market* − *p. 083* 

#### Effect (strength, time horizon)

**High, medium-term to long-term:** Loss of market share, failing profitability and increased negative margin trends due to stronger international price competition may weigh down revenue and earnings. The longer the consolidation of the solar industry continues in such a way, the more difficult it is for companies to implement successful measures to restore business profitability.

#### **Counter-measures**

- Trade: Differentiation of our products through innovation, quality, service and design (reduce)
- Trade: customer retention programs (reduce) ➤ Marketing p. 040
- Other: Legal steps to guard against dumping and unfair competition by Chinese solar manufacturers in Europe and the United States (assume) ► International trade disputes p. 036
- Other: Strategic alliances to achieve synergy effects and thus strengthen the group's market Position (transfer)
- Production; Other: Optimization of production along the entire value chain to improve our cost structure; research and development (assume)
- Production: Increase production capacities to achieve economies of scale (assume) > Future development in production p. 087

#### PROCUREMENT RISKS →

#### Risks

- 1. Insufficient silicon supply: limitations on production volume due to insufficient silicon supply; compulsion to buy on disadvantageous terms and/or poor quality
- 2. Costs of purchasing other raw materials (silver, copper, aluminum, etc.) on the rise: higher procurement costs; strong speculative fluctuations particularly for silver, aluminum and copper; inaccurate hedging
- **3. Deterioration of procurement conditions:** Suppliers could reduce their payment terms/credit limits for SolarWorld, or only deliver after advance payment.

#### **Probability**

- 1. Low: In 2014, we signed new agreements with two out of three of our current main silicon suppliers that secure our supply on favorable terms into the medium term. In the long term, our joint venture will make an additional contribution to our silicon supply.
- 2. Medium: A rise in the international demand for raw materials in all industries could cause raw material prices to rise.
- **3. Medium:** Because of market disruptions, some suppliers could reduce their credit limits and payment terms for SolarWorld, or only make deliveries subject to advance payment.

#### Effect (strength, time horizon)

- 1. High, short-term to medium-term: Silicon is the main raw material used to manufacture solar cells. Supply bottlenecks, delayed deliveries or quality defects could halt production, which would have a negative impact on revenue and earnings.
- 2. Medium, short-term: Higher prices for other raw materials could negatively impact earnings.
- **3. Medium, short-term:** temporary commitment of liquid funds; Deliveries subject to advance payment could mean that the SolarWorld group has to bear the corresponding supplier's risk of default, defective performance or non-performance.

#### Counter-measures

- **Production; Trade:** Expansion of our supplier networks and maintenance of our good, long-term supplier relationships; renegotiations with suppliers; flexibilization of purchase terms (assume) Future development in the global supply chain p. 087
- Production; Trade: Use of alternative products reduces dependence on individual suppliers. (reduce)
- Other: Strategic alliances to achieve synergy effects and thus strengthen the group's negotiating position with suppliers (assume, transfer)

#### CORPORATE STRATEGY RISKS →

#### Risks

- 1. Misjudgment concerning future developments: bad strategic decisions with regard to investments, disinvestments, technology development, location decisions, acquisitions and joint ventures, financing, organizational structure and business model
- 2. Industrial espionage: loss of intellectual property, technological advantages, patents, etc. as a result of systematic industrial espionage

#### **Probability**

- 1. Medium: The solar power industry is continuing to experience rapid market changes and tough competition. In this critical market environment, it is more difficult to design long-term strategies that can also withstand the consolidation phase. Owing to the prevailing state of cut-throat competition, market participants often act in an irrational and unpredictable way. This increases the risk of making wrong strategic decisions.
- 2. High: Because of continuing strong competitive pressure, we still consider that there is a high risk of industrial espionage.

#### Effect (strength, time horizon)

- 1. High, short-term to long-term: Loss of market share, image and capital due to wrong strategic decisions might erode the group's economic position. Lack of acceptance of new products might affect our revenues and earnings. Loss of intellectual property might diminish our pioneering role and mean the loss of competitive advantages.
- 2. High, short-term to long-term: Loss of intellectual property might diminish our pioneering role and mean the loss of competitive advantages.

#### Counter-measures

- Other: make use of external consultants (reduce)
- Production; Other: strategic alliances to split the investment risk (transfer, assume)
- Other: research and development activities close to production and cooperation schemes with universities and research centers (assume)
- All segments: identify market trends by means of market analyses in all business segments and long-term relationships with customers, suppliers and political decision-makers (reduce, assume)
- · All segments: stricter security precautions, particularly in IT (reduce)
- All segments: more global orientation of structures and functions in the group; exchange best practices between individual group locations (assume)

#### T 29

#### **DEFAULT RISKS** →

#### Risks

Insolvency of individual customers: loss of receivables outstanding

#### Probability

**Medium:** Our customers consist mainly of a large number of wholesalers and installers who essentially are not affected negatively by solar industry consolidation. Therefore, we assess the general risk of loss of receivables outstanding to be medium.

#### Effect (strength, time horizon)

**Low, short-term:** The loss of receivables from individual customers in the "Trade" segment would only have a small impact on our business as we have a very broad customer base and none of our customers accounts for more than 10 percent of our revenue.

#### Counter-measures

- Production; Trade: ongoing monitoring and analysis of receivables (reduce)
- Production; Trade: selective conclusion of credit insurance policies (transfer)
- · Production; Trade: cash in advance and down-payment arrangements (reduce)
- Trade: spread risk across a wide customer base of more than 1,200 customers, i.e. international system integrators, specialized wholesalers and installers (reduce)

#### SALES AND PRICE RISKS ↓

#### Risks

Continuing or increasing price pressure and supply surplus: lower demand for our products

#### **Probability**

**Medium:** Price pressure in the market may intensify as a result of competition and changes in the legal framework in core markets. Less favorable funding and financing conditions for purchasing solar power systems could lead to drops in demand on the market. Anti-dumping measures could be relaxed or circumvented. Customers could decide to buy products from competitors. Overall, demand for solar products is rising globally, which implies that the relationship between supply and demand might normalize. Hence, we consider that the probability of this risk occurring is medium.

#### Effect (strength, time horizon)

High, short-term: If less than the agreed volumes of our products are purchased or if prices drop due to dumping, this could mean that we are unable to sell our products at a cost-covering price. Furthermore, impairments on inventories may be necessary, which would adversely affect earnings. Not only could a steep drop in demand diminish revenue, it could also result in a lower utilization of our production that negatively impacts unit costs as well as margins and affect the intrinsic value of the production facilities. It could also increase our storage costs. Any unexpected shift in demand (regionally or to another customer segment) could negatively affect achievable sales revenues and margins and produce deviations from expected earnings.

#### Counter-measures

- Trade: identify changing customer needs at an early stage and target them specifically with new products (assume)
- Trade: enhance the value added of the SolarWorld brand; increase customers' loyalty to the company and affirm their decision to buy from SolarWorld (assume)
- Trade: spread risk via the group's internationalization strategy and across a wide customer base of more than 1,200 customers, i.e. international system integrators, specialized wholesalers and installers (reduce)

#### T 31

#### **HUMAN RESOURCES RISKS** →

#### Risks

Shortage of highly-skilled technical and executive staff: difficulties in filling key positions; high attrition rate

#### Probability

**High:** The availability of highly qualified technical and executive staff in the labor market is declining, while competition for talent is growing. The strong trend toward consolidation in the solar industry negatively affects the solar market's appeal to people just starting out in their careers or those entering the market from other industries.

#### Effect (strength, time horizon)

**Medium, medium-term:** Potential erosion of our technological edge and slowdown in corporate growth due to a shortage of skilled technical staff might adversely affect revenue and earnings.

#### Counter-measures

- All segments: selective, needs-oriented skills development for our existing staff; strengthening our image as an attractive employer and
  retention of employees (strong corporate culture with REAL VALUE approach); development of a global succession planning especially for key
  positions; implementation of a Change Program to support employees in the operative restructuring (reduce, assume) > Employees p. 052
- All segments: Defining deputy roles and powers within the scope of our quality management system (reduce)

#### IT RISKS →

#### Risks

- 1. Disturbances in the operation of IT systems and networks: endangerment of availability of IT services at international sites
- 2. Hacker attacks: risks from data loss and industrial espionage
- 3. Implementation of SAP as central ERP system of the group: delays or disruptions due to the ERP system implementation

#### **Probability**

- 1. Medium: Our IT systems undergo maintenance and are adapted so that they meet professional, organizational and safety-related demands.
- 2. High: Hacker attacks on IT infrastructure cannot be prevented by the company. Regular security updates, controls and action plans prevent and limit the effects on our operative business.
- 3. Medium: Because of complex IT structures in production and sales, and the numerous individual sites, delays and unpredictable disruptions with regard to the groupwide changeover to SAP cannot be ruled out.

#### Effect (strength, time horizon)

- 1. High, short-term to medium-term: Interruption of production and workflows might cause productivity losses.
- 2. High, long-term: Industrial espionage and theft of intellectual property could result in the loss of competitive advantages.
- **3. High, short-term to medium-term:** Disruptions of the ERP system can lead to interruptions of work, data security threats and interruptions in production processes and in the supply chain.

#### **Counter-measures**

- All segments: regular investments in updates, software and hardware systems; up-to-date virus scanners and firewalls reduce the risk of virus and hacker attacks; certified systems enhance security and reliability; encryption protects our data. (reduce)
- All segments: separation of production and administration IT systems to minimize potential failure risks (reduce)
- · All segments: regular data backups several times per day (reduce)
- · All segments: thorough project management for implementation of ERP system (assume)

#### LIQUIDITY RISKS →

#### Risks

- **1. Longer-term negative earnings position:** increased outflow of funds; negative operating cash flow
- 2. Breach of covenants: termination of loans

#### **Probability**

- 1. Medium: Price deterioration and falling shipments could worsen the earnings position again and accelerate the outflow of liquid funds from the company. Difficulties with the implementation of our operational restructuring measures could increase the likelihood of this risk's occurrence.
- **2. Medium:** Due to the adjustment of financial covenants within the framework of the financial restructuring and the current financial planning, SolarWorld considers that there is a medium probability of this risk occurring.

#### Effect (strength, time horizon)

- 1. High, short-term to medium-term: Ongoing negative operating cash flow could have a strong negative impact on the group's liquidity position, strongly limiting our ability to act and to pay. If the company is exposed to this situation in the longer term, refinancing with borrowed capital would become even more difficult.
- 2. **High, short-term to medium-term:** creditors' special right of termination, implying the potential need for renegotiation of credit agreements

#### **Counter-measures**

- All segments: Regular meetings with all of our creditors; closer control of liquidity using active working capital management; measures to appraise assets (reduce, assume)
- All segments: ► Note 40e Liquidity risks p. 161

#### T 34

#### OTHER FINANCIAL RISKS →

#### Risks

#### Currency, interest rate and price risks

#### **Probability**

**Medium:** Due to the procurement of raw materials, particularly in U.S. dollars, and the sale of products in other currency regions, we are exposed to currency risks. These are cushioned by natural hedging. As a global player we are also exposed to interest rate and price risks. Thanks to pro-active, regular and careful review of our financial instruments, we assess these risks as being medium.

#### Effect (strength, time horizon)

Medium, long-term: impact on the result of our business operations.

#### **Counter-measures**

All segments: selective use of derivative and non-derivative financial instruments (transfer, reduce)

▶ Note 40 Capital management and financial instruments – p. 159

#### LEGAL RISKS →

#### Risks

- 1. Litigation in connection with notices of redemption for old notes: Courts could order SolarWorld AG to immediately repay the nominal amounts with interest of those old notes for which noteholders have given notices of redemption.
- 2. Litigation between a silicon supplier and our subsidiary SolarWorld Industries Sachsen GmbH: claims for damages resulting from the failure to purchase silicon under silicon supply contracts with one supplier
- 3. Other pending material litigation and proceedings: individual court or administrative proceedings in which third parties claim rights against SolarWorld
- **4. Other legal risks:** There is a wide range of tax, competition, patent, anti-trust, labor law, trade mark, and environmental regulations within the scope of our international business operations, infringement of which may cause costs.

#### Probability

- 1. Low: SolarWorld AG considers that the submitted notices of redemption for the old notes are not effective, since according to external legal opinion, no right to demand early redemption exists in accordance with the bond terms and conditions or for good cause. The Frankfurt am Main Regional Court (Landgericht) dismissed the action in various proceedings. On the other hand, the Frankfurt Higher Regional Court (Oberlandesgericht, OCI) considers that notices of redemption that were declared between the date the noteholders' meetings of August 5/6, 2013 were called and the date when respective noteholders' meetings took place, are valid. SolarWorld AG has filed an appeal against this ruling with the German Federal Court of Justice (Bundesgerichtshof), which is still awaiting a decision. Other proceedings are pending before the Bonn Regional Court and the Cologne OLG.
- 2. Low: According to an external legal opinion, there are anti-trust concerns under European law regarding the underlying silicon contracts, which could mean that the purchasing obligations of SolarWorld Industries Sachsen GmbH are invalid, and possibly that the supply contracts are null and void. As a result, according to external legal opinion, the supplier is not entitled to claim damages. However, there is a possibility, which cannot be ruled out, that courts, especially in foreign countries, may have a different opinion or consider European anti-trust legislation not applicable.
- 3. Medium: Based on the respective states of proceedings, currently, it is to be expected that SolarWorld will incur financial costs as a result.
- **4. Low:** Beyond this, SolarWorld is not currently aware of any material risks from litigation, patent infringement or other legal risks that might significantly impact the business situation of the company. As a result of our global sales presence, however, risks could in principle arise in connection with legal disputes relating to trademark usage.

#### Effect (strength, time horizon)

- 1. Low, short-term: If courts should decide, contrary to our opinion, that noteholders have an extraordinary right to demand early redemption, SolarWorld would have to repay the redeemed notes at the full nominal amount plus accrued interest. If the Frankfurt OLG ruling is upheld, notices of redemption for notes having a total nominal value of approx. € 1.4 million would be effective. However, the noteholders have to give back the benefits obtained from the restructuring in return for repayment of the nominal amount; this considerably reduces the economic risk for SolarWorld AG. We consider the negative impacts on the company's liquidity position to be low.
- 2. High, medium-term to long-term: If courts should decide that the silicon supplier is entitled to damages from our subsidiary SolarWorld Industries Sachsen GmbH, this would have a considerable negative impact on the company's liquidity position, possibly even threatening the company's continued existence.
- **3. Medium, short-term:** All material cases pending are currently still at a stage where first of all, in principle, a claim against SolarWorld needs to be finally established. Regarding the amount, so far no claims have been asserted legally or administratively. In the consolidated financial statements, provisions for these matters have been set up in a total amount of around € 6.3 million. However, the possibility of incurring significantly higher financial costs, depending on the course and outcome of the proceedings, cannot be ruled out.
- **4. Medium, long-term:** Litigation might impact the result of our business operations since it would tie up financial resources, jeopardize the company's reputation and brand and cause losses of tangible and intangible corporate property.

#### Counter-measures

All segments: legal advice from several specialized external legal experts (assume, reduce)

#### GUARANTEE AND OTHER LIABILITY RISKS →

#### Risks

- **1. Guarantee risks:** granting a linear performance guarantee of up to 30 years for solar modules sold by us
- 2. Other liability risks: e.g. product safety, occupational safety, risks from the sale of wind and solar farms.

#### **Probability**

- 1. Low: Based on careful examination of our process and product quality, we assess the risk of claims being made against our performance guarantee as low.
- 2. Low: Thanks to pro-active regular quality assurance measures and quality controls concerning product, protection against hazards and with regard to health and safety at our sites, we assess the probability of these risks as low.

#### Effect (strength, time horizon)

- 1. Medium, long-term: potential negative impact on our assets, financial position and earnings in the event of guarantee claims
- 2. Medium, long-term: production losses; loss of assets; potential claims for damages

#### Counter-measures

- All segments: risk provisioning in the balance sheet for the company's guarantee commitment through the formation of a provision (assume) Note 34 Non-current and current provisions p. 155
- · All segments: securing other risks via comprehensive insurance cover based on conventional concepts (transfer)
- All segments: regular review of the extent of insurance cover for risks, based on site inspections (reduce)
- All segments: compliance with legal provisions and voluntary adherence to more far-reaching standards (e.g. ISO 9001 and ISO 14001, codes of conduct) (assume)
- · All segments: analysis of complaints and improvement of product quality (reduce, assume)

#### T 37

#### ENVIRONMENTAL AND OTHER RISKS →

#### Risks

- 1. Environmental risks: higher insurance premiums due to more frequent storms/fires/drought periods caused by progressive climate change
- 2. Punishment for breaking environmental laws
- 3. Conflicts with stakeholders: e.g. because of inconvenience caused by noise and light emissions for residents living in the direct vicinity of our production sites

#### Probability

- 1. High: Climate experts forecast an increase in extreme weather incidents.
- 2. Low: Fines or compensation payments are less probable since we ensure compliance with standards by means of our environmental management system.
- **3. Low:** There are many stakeholders with many different needs. By facilitating direct dialog with our stakeholders we reduce the probability of conflict.

#### Effect (strength, time horizon)

- 1. Low, medium-term: Potential damage due to more frequent storms/fires or costs in the wake of drought periods and floods will not affect us more strongly than other companies.
- 2. Medium, short-term to medium-term: Fines or compensation payments might impact on the financial position of our company.
- **3. Medium, short-term to long-term:** Should any serious conflicts with stakeholders arise, this might Impact our company (via damage to our image and follow-up costs) over the very long term.

#### **Counter-measures**

- All segments: Current risks are largely covered by insurance policies. (transfer)
- All segments: further development of the company's environmental management system (reduce)
- All segments: Stakeholder dialog, for instance through discussions with residents at neighborhood meetings and the joint preparation
  of measures, e.g. to reduce noise and light emissions (reduce)

# OVERALL STATEMENT BY THE MANAGEMENT BOARD ON THE GROUP'S RISK POSITION

The overall risk position resulting from the analysis and evaluation of individual risks has improved slightly in comparison with the previous year, mainly because of the successful completion of financial restructuring on February 24, 2014 and a stabilization of market conditions. Nevertheless, the Management Board considers the group's risk position to be high especially because competitive pressure as well as price pressure and pressure to reduce costs are still strong and the regulatory environment in the solar market might change for the worse. The individual risks presented above can influence each other and thus worsen the overall risk position of the group. In assessing the risk position, we have not taken any opportunities into account.

The going concern of the company is not endangered at the time of setting up the financial reporting at hand. However, the occurrence of the risks presented above would have substantial impacts on the assets, financial position and earnings of the SolarWorld group. Failure to meet the business planning objectives underlying the restructuring program and/or difficulties with implementing the operational restructuring measures could have a negative impact on the financial position of the SolarWorld group.

# **OPPORTUNITY REPORT**

# OPPORTUNITIES FROM THE DEVELOPMENT OF GENERAL CONDITIONS

SolarWorld is well-positioned to benefit from international growth in the solar market. Analysts predict that global demand will grow until the year 2018 at an average annual rate of more than 12 percent. The regions of Europe, North America and Japan, in which SolarWorld is particularly well positioned, are set to make up around 50 percent of the global market in the next five years.

Through a stronger local sales presence, the SolarWorld group will position itself closer to the individual regional

growth and core markets to achieve better market penetration. Especially in industrialized countries, solar markets are experiencing a transformation: Customers increasingly view solar technology as an option for reducing their own energy costs — and not any more solely as a financial investment driven by the feed-in tariff. SolarWorld aims to assist its customers in this transformation and is therefore expanding its own range of services with region-specific pre-sales and after-sales activities. F Trade — p. 037

### STRATEGIC OPPORTUNITIES

With the acquisition of solar activities from Bosch Solar Energy AG on March 12, 2014, the SolarWorld group gained a new, highly modern manufacturing facility in Arnstadt (Germany), bringing a significant increase in our cell and module production capacities. ► Production capacities at year-end 2014 − p. 043 We therefore strengthened our position as a Western quality provider. By expanding cell production capacities in the group, we want to boost external sales of solar cells and so create new sales channels for SolarWorld starting in 2015.

In sales, production and research and development, we aim to form strategic partnerships. Our goal here is to open up new sales channels and develop new products as a way of strengthening the group's competitiveness and ability to act. In 2015, for example, we are involved in partnerships with Enphase, a leading provider of microinverters and with manufacturers of storage systems and intelligent energy-control solutions. In sales, furthermore, we seek partners to reach new customer groups.

### PERFORMANCE-RELATED OPPORTUNITIES

The successful completion of our financial restructuring in February 2014 and the acquisition of solar activities from Bosch Solar Energy AG strengthened our negotiating position with suppliers. These new circumstances enable us to secure not only better purchase prices but also new credit limits and payment terms, which should have a positive effect on our working capital in future.

In 2014, the roll-out of SAP as the central system for the group progressed to the point that SolarWorld will be able to implement global processes in sales, logistics and production at the relevant locations in 2015. This facilitates a rapid response to customer and production demands

and reduces costs through harmonized master data and bill of materials worldwide. The planned switch to SAP – a standardized, central ERP system for the group – will allow us to make our processes more efficient while minimizing the potential for errors.

In logistics, opportunities result from a targeted pooling of services. In addition, by centralizing distribution processes, we can achieve economies of scale and so implement further cost reductions. The changes outlined above should also help us further enhance our delivery quality and reliability, while simultaneously improving our performance.

# **FORECAST REPORT**

### **THE FUTURE MARKET 2015+**

#### **ECONOMIC ENVIRONMENT**

Over the next two years, economic output in the advanced economies is set to grow steadily. Continuing expansionary monetary policy and the low oil price will support a positive economic trend and boost private consumption. Overall, the global economy is set to grow 3.7 (2014: 3.4) percent in 2015 and 3.9 percent in 2016.

Looking ahead, the United States will become an even more important sales region for SolarWorld. The economic outlook is positive in this region too. According to the Institute for the World Economy (IfW), private consumption is being driven particularly by better job market conditions and lower-cost financing, and is set to rise further. The U.S. economy is set to grow 3.2 (2014: 2.2) percent in 2015 and 3.5 percent in 2016. The eurozone economy is also likely to see further expansion: 1.2 percent in 2015 and 1.5 percent in 2016.

In Germany, private consumption looks set to increase further. In view of cheaper financing options, better sales opportunities should lead to an increase in investment activity. IfW predicts that the German economy will grow 1.7 (2014: 1.5) percent in 2015 and 1.9 percent in 2016.

#### THE FUTURE SOLAR POWER MARKET

For 2015, market analysts at Bloomberg expect global solar demand to grow by around 20 percent to 53 (2014: 45-47) GW. The strongest growth impulses will probably come from the United States, United Kingdom, Japan and China.

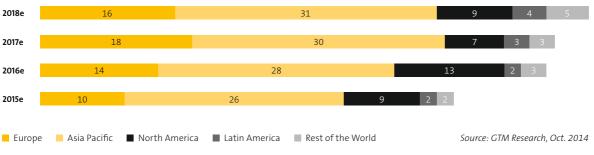
As before, further developments in the solar market are dependent to a large degree on regulatory changes in the various markets, with the result that demand in individual regions may fluctuate substantially according to the legislative environment. On the whole, however, all indicators point to growth in the global solar market in 2015.

U.S. solar market will grow by around 40 percent in 2015 – newly installed solar power systems with a total output of between 8.6 and 9.0 GW are expected in this market. The large-scale projects ("utilities") and households ("residential") segments will probably contribute most to demand growth. At the same time, regional distribution of demand between individual American states could be more evenly balanced in future. Nevertheless, as in the past, California is likely to remain the most important driver of growth for the U.S. solar industry (2014: 51.9 percent of the U.S. market).

**EUROPEAN MARKET STABILIZES.** Market analysts expect European demand for solar products to rise in 2015 for the first time since 2011. Overall, the European market is set to grow by up to 15 percent in 2015 to 7.8 (2014: 6.8) GW.

The United Kingdom and France are likely to continue their positive trend and assert their position as established solar markets in 2015. According to Bloomberg demand in the UK is set to rise to between 2.8 and 3.1 (2014: 2.2) GW in 2015, whereas for France, a stable trend is anticipated, with newly installed capacity of around 1.0 (2014: 1.0) GW. The Italian market will reach a turning-point in 2015. During the 2014 fiscal year, a new incentive system for solar power was given the green light there. Since then, installers and

#### **EXPECTED DEVELOPMENT OF THE SOLAR MARKET BY REGION IN GW**



G 24

customers have been able to gain their first experiences of the new system and familiarize themselves with the new model. Following an initial drop in demand, this market should return to moderate growth in 2015. Thus, Bloomberg forecasts demand of between 0.5 and 0.6 (2014: 0.4) GW for Italy. In Germany things look quite different: In this market SolarWorld expects stagnating or even declining demand in 2015, so that new installations are likely to be in the range between 1.5 and 1.9 (2014: 1.9) GW. We see the main reasons for this development in the fact that the renewable energy levy is charged on self-consumed solar power and conditions for installations of large free field solar plants have become unattractive.

**STRONG GROWTH EXPECTED IN ASIA.** Analysts state that China and Japan will still be the world's largest solar markets in 2015. New installations in China in 2015 are likely to reach between 14.4 and 14.9 (2014: 10.5) GW. In Japan, the economics

ministry is currently discussing an adjustment to the feed-in tariff. Nevertheless, market commentators expect further market growth in 2015, with new installations of between 10.9 and 12.1 (2014: 10.3) GW.

Other regions such as Latin America and Australia will become more significant solar markets in 2015. In Latin America, in particular Mexico, Brazil and Chile are becoming attractive sales markets, even though they are still in their early stages. Governments in these countries want to benefit from an abundance of sunlight and reduce their dependence on other energy sources. Various incentive systems were implemented during 2014 which could start to take effect in 2015. GTM Research anticipates total demand in this region of around 2.3 (2014: 0.8) GW in 2015.

### FUTURE STRATEGIC ALIGNMENT OF THE GROUP

In the years ahead, SolarWorld AG will work systematically to implement its group strategy and operational measures. To return to profitability as a company, we want to create more value for customers, achieve growth in the solar markets and at the same time significantly improve our process efficiency. 
• Goals and strategy – p. 024

In 2015, we aim to expand our position as a quality provider in the international solar market and substantially increase our shipments. Strong demand for our solar modules continues to drive growth. At the same time, we will be placing greater emphasis on the market for complete solar power systems, because this segment has even higher potential for creating customer value that sets us apart from the competition.

Our location policy will continue to be geared to customer proximity. We intend to adjust production capacities to rising market demand.

### **EXPECTED BUSINESS DEVELOPMENT 2015**

#### **FUTURE SALES MARKETS**

ACCELERATING GROWTH INTERNATIONALLY. In 2015, SolarWorld intends to benefit from a powerful surge in global demand for solar power technology and accelerate its growth. We are targeting total shipments of more than 1,000 (2014: 848) MW. ► Expected development of revenue and profit or loss − p. 089

**EXPAND BUSINESS IN THE AMERICAS.** It is likely that the Americas will account for more than half (2014: 41 percent) of group-wide shipments of modules and kits in 2015. Our business in the Americas is predominantly based in the United States, although we are increasingly active in Central and South America too

**GAIN MARKET SHARES IN EUROPE.** Despite the anticipated stabilization, Europe—including Germany, our home market—remains a highly competitive market for us. With a continued focused sales approach, we want to utilize our opportunities here as the largest domestic manufacturer. Our goal is to

increase shipments and gain market shares. SolarWorld's most important European sales market will be Germany, followed by the United Kingdom and France.

Germany remains an attractive market for SolarWorld, but it is going through a transformation. Increasingly, the main incentive for buying a solar power system is the prospect of reducing energy costs at home or in a business, and no longer primarily the feed-in tariff. Our sales team works to make installers and end customers aware of this potential. To this end, we involve our installers in Certified Partner programs for sales in Germany and other markets.

► Marketing – p. 040

**GROW IN ASIA-PACIFIC.** Japan is now by far our largest market in the Asia-Pacific region. By establishing our own sales subsidiary, we want to enjoy greater participation in this market's anticipated growth than previously. Furthermore, additional sales opportunities in this region are emerging in Australia, Indonesia, Malaysia and Thailand.

**PROVIDING NEW INCENTIVES WITH IMPROVED MODULE DESIGN.** The strength of our core product – the module – provides the basis for our continued growth. Starting in 2015, we will be able to offer our customers an enhanced module design. For the first time, the design will be standardized in all markets. We also take customers' differing needs into account by offering various module sizes and types.

**INCREASE SALES OF COMPLETE SOLAR POWER SYSTEMS.** One of Solar-World's ongoing goals is to grow its complete solar power solutions business, because greater differentiation from the competition is possible in this segment. The strong module business can produce opportunities for subsequent sales of SolarWorld system components, e.g. a suitable SolarWorld storage system or monitoring and control instruments that are added to an existing system.

We have set ourselves the goal for 2015 of increasing the shipments of kits internationally. Our storage system SunPac LiOn is set to be a key driver. This product is attractive in markets where solar power storage is incentivized, or where the incentive is not based on maximum feed-in.

Project planning and implementation of turnkey large-scale projects in principle remain areas of interest for SolarWorld, but we shall always take the risks and impacts on liquidity into account.

**ESTABLISH STRATEGIC PARTNERSHIPS.** In future, SolarWorld will step up efforts to form strategic partnerships to make better use of opportunities in sales markets, build new routes to end-customers and enhance customer value.

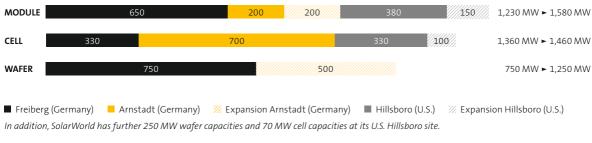
► Strategic opportunities – p. 081

#### FUTURE PRODUCTS AND BRAND STRATEGY

**ENHANCE CUSTOMER VALUE WITH PRODUCT INNOVATIONS.** We will continue to consistently pursue our goal of increasing the customer value of our solar power solutions. In 2015, we will offer modules with an even higher electric capacity than before. Furthermore, we are creating advantages for our customers in 2015 with a new, improved module design. It has reduced weight, a better self-cleaning effect, offers easier and faster installation and is compatible with a wider range of different system and frame technologies.

Solar power systems in which modules are combined with other components to form a complete solution will continue to be strategically important for the SolarWorld group. Following the market launch of SunPac LiOn, Suntrol eManager and Suntrol MyHome in 2014, we are working on further product innovations and enhancements that make operating a solar power system attractive regardless of feed-in tariffs and other support incentives.

#### PRODUCTION CAPACITIES AND PLANNED CAPACITY EXPANSION 2015



G 25

**BUILD ON BRAND STRATEGY.** Following the successful roll-out of our REAL VALUE brand identity in our international solar markets, we will build on this brand strategy in 2015. Internally, we aim to continue stringently aligning our quality processes and product developments with this value proposition. We want to deliver a clear additional benefit to customers when they purchase a SolarWorld product and also communicate this benefit effectively.

**DEVELOP CERTIFIED PARTNER PROGRAMS.** Our international Certified Partner programs continue to play an important role for us. In future, particularly for the German market, we want to improve the program by aligning our services more closely with our partners' needs, thereby increasing their loyalty.

#### FUTURE DEVELOPMENT IN PRODUCTION

**FACILITATE GROWTH.** In production, we will achieve economies of scale in 2015 due to volume growth, enabling us to reduce our manufacturing costs and improve the group's competitiveness. As announced in the fourth quarter of 2014, we are planning to expand module capacities from 380 MW to 530 MW in the United States . We expect these extra capacities to be available from the second half of 2015. This expansion is the first step toward our target capacity of 630 MW in Hillsboro. Furthermore, in our U.S. cell facilities, we will raise production capacities of PERC high-performance cells by 100 MW.

At our Arnstadt site, alongside ongoing cell and module production, we also tested the production of monocrystalline ingots, from which solar wafers are sawn, in 2014. After a positive outcome of the feasibility study, we will be able to expand groupwide wafer capacity by up to 500 MW. Furthermore, we intend to double module capacities at the Arnstadt site.

**BOOST COMPETITIVENESS.** In 2014, we pressed ahead with integration processes at all three production sites to boost our cost competitiveness. We will continue with this in 2015. One key project, for example, is concerned with identifying potential for further reductions in our manufacturing costs in Germany. Here, we consider Germany as a whole, with our organizational units in Freiberg, Arnstadt and Bonn. We will implement measures in stages here in 2015.

With regard to our three production sites, we will continue working to harmonize our standards and processes. The introduction of a standardized module design will make a significant contribution in this respect in 2015.

### FUTURE DEVELOPMENT IN THE GLOBAL SUPPLY CHAIN

We still see unrealized potential in SolarWorld's global supply chain, which was established in 2013, that could make a significant contribution to the company's success. For example, we aim to achieve further savings in purchasing and logistics in 2015. Since 2012, we have successfully made substantial cost cuts in these departments through organizational improvements in the group and negotiations with our suppliers and service providers. Our supplies of raw materials and other materials continue to be secured into the future

Our joint venture in Qatar will produce the first volumes of polysilicon in the first half of 2015. In the future, this will provide us with our own raw material source, increasing our long-term supply security.

In the "Product" Management Board department, furthermore, we want to strategically integrate the Global Supply Chain and product management and development departments more closely than before and, at the same time, include our suppliers as well. In the product development process, this allows us to take material characteristics and costs into account from the outset

## FUTURE RESEARCH AND DEVELOPMENT ACTIVITIES 2015

Our future innovation activities will focus on further improvements to our solar modules in respect of performance, quality and cost criteria. To increase module output in future, we plan to make further improvements in the PERC concept for solar cells. Here we will continue to combine our research activities at all three production sites.

In 2015, we will also be developing bifacial modules and systems that can collect sunlight on the rear as well, thereby achieving a further efficiency increase. They are suitable for use in desert regions, for example, where the sand well reflects the sunlight.

Our other innovation activities will be focusing on complete solar power systems with capabilities for intelligent load management and storage. Here we will pursue an integrated approach across the entire production process, from crystallization to the module and system.

Our involvement in Photovoltaic Innovation Alliance ("Innovationsallianz Photovoltaik") projects is highly significant for our research and development activities. Since the beginning of 2015, we have been coordinating a project which is aiming to develop cost-effective solar wafers for high-performance solar cells.

#### **FUTURE HUMAN RESOURCES DEVELOPMENT**

**EFFICIENCY AS GOAL OF ORGANIZATIONAL DEVELOPMENT.** We are striving to become more efficient in all areas of our group and make our organization leaner and even more global. Across sites, we will harmonize our processes, yield synergies and reduce redundancies in the deployment of personnel. Executives and employees will be actively involved in implementing operational measures within the framework of the groupwide Change Program ► *Operational measures* − *p.025* 

STRENGTHEN EMPLOYEES' COMMITMENT. Our employees' commitment to working to implement the necessary changes and long-term objectives of the group is critical for the company's success. In this light, we are planning a global employee survey for 2015. Our aim is to measure our employees' level of commitment again now that the key operational measures under the restructuring program and Change Program have been implemented. The results of the survey will be used to identify potential areas of improvement for SolarWorld as an employer and to determine appropriate action plans and metrics. We want to implement these by 2016. Annual global employee surveys allow us to monitor the success of the measures on an ongoing basis.

Building on our vision and mission, and the strong corporate culture at SolarWorld sites, we also aim to strengthen our employees' commitment in future via targeted employer branding. Employer branding will combine with the REAL VALUE brand essence, since it is our employees who live the values of the company and spread them to the world outside.

### **EXPECTED EARNINGS AND FINANCIAL POSITION**

### EXPECTED DEVELOPMENT OF REVENUE AND PROFIT OR LOSS

The ongoing crisis in the solar industry has reached a turning point. Market analysts expect the global solar market to grow around 20 percent in 2015, compared with 2014. Competition in the solar markets remains fierce, however, which means that average prices in individual markets could remain under pressure.

In this market environment, SolarWorld intends to continue to position itself as a quality provider, while increasing shipments in all relevant core markets through a targeted sales approach. With almost full production capacity utilization, the group aims to grow faster than the global solar market in 2015, boosting its total worldwide shipments by at least 25 percent to more than one gigawatt.

Following the trend of shipments, consolidated revenue in 2015 should climb at least 25 percent compared with 2014, to more than € 700 million.

The Management Board anticipates that the successful implementation of operational measures to increase efficiency and cut costs will continue and confirms the target of achieving an operational turnaround in 2015. Accordingly, the group expects to achieve positive operational EBIT (excluding potential one-off effects) in the 2015 fiscal year. EBITDA (excluding potential one-off effects) in fiscal year 2015 should also exceed previous year's level significantly.

The Management Board expressly points out that the assumptions and framework conditions on which the business planning is based could change over the course of fiscal year 2015. The Management Board's assessments are based on available information which it currently considers to be realistic but which is dependent on various factors that are beyond the control and influence of the Management Board of SolarWorld AG and therefore of limited predictability.

#### EXPECTED DIVIDEND AND DISTRIBUTION

There are no plans to distribute a dividend for fiscal year 2014. According to current plans, the priority for any future profits will be to repay liabilities and finance the company's further growth. For this reason, no distribution of dividends to shareholders is anticipated in the near future.

#### SCHEDULED FINANCING MEASURES

No major financing measures are planned for 2015.

#### PLANNED INVESTMENTS

In the 2015 financial year, we are planning to make investments totaling a low to medium two-digit million euro amount. Investment will be focused on expanding production capacities within the existing lines and on further technological improvements and efficiency enhancements.

#### EXPECTED LIQUIDITY DEVELOPMENT

On December 31, 2014, our liquid funds totaled € 177.1 (December 31, 2013: 163.7) million. For fiscal year 2015, the Management Board expects a further increase in liquid funds. Cash flow is influenced to a large degree by the operating result, planned capital repayments and interest payments and potential short-term fluctuations in our working capital.

# OVERALL STATEMENT BY THE MANAGEMENT BOARD ON FUTURE GROUP DEVELOPMENT

Since the beginning of 2014, SolarWorld has been back on a sound financial footing. On this basis, the group has focused its energies on the operating business, sharpened its competitiveness and set a course for growth — as the last remaining major solar company with production facilities in Europe and the United States.

With tailwinds from rising global demand, we intend to continue on this growth trajectory in 2015+. SolarWorld plans to increase its shipments, particularly in the United States, in individual European markets and in Japan.

SolarWorld builds its business success above all on the quality segment of international solar markets and clearly differentiates itself from the international competition with its customer value proposition and REAL VALUE core message.

In addition, SolarWorld will continue groupwide operational measures in 2015 to further streamline processes in the group and reduce costs. From this stronger position, the SolarWorld group plans to shape its profitable and sustainable growth.

# CORPORATE GOVERNANCE

### **093 CORPORATE GOVERNANCE**

- 093 Corporate Governance at SolarWorld
- 093 Corporate Governance report 2014
- 098 Remuneration report

104 REPORT BY THE SUPERVISORY BOARD 2014

# **CORPORATE GOVERNANCE**

In the following report, we would like to provide a comprehensive look at the fundamental principles and provisions of the corporate governance system of SolarWorld and

explain the mode of operation of the Management Board and Supervisory Board in particular.

### CORPORATE GOVERNANCE AT SOLARWORLD

As an internationally active group oriented toward sustainability, SolarWorld feels compelled to maintain a responsible and transparent system of corporate governance and monitoring. Good corporate governance fosters the trust of market participants in the company and in the functional capability of the capital market as a whole. We also see this as a basic prerequisite for sustainably increasing the company's value and securing the interests of our investors, business partners, employees and other stakeholders.

In addition to following the legal requirements of the capital market and corporate law, the corporate governance system of SolarWorld AG also takes into account the recommendations of the German Corporate Governance Code (GCGC).

We are continuously working on further developing the corporate governance system within the company while also adequately involving all stakeholders. ► <u>Sustainability</u> in detail 2014

### **CORPORATE GOVERNANCE REPORT 2014**

#### **DECLARATION OF COMPLIANCE**

The Management Board and Supervisory Board have dealt extensively with the issue of how to apply the recommendations of the GCGC version from June 24, 2014 to the SolarWorld group. In the declaration of compliance submitted each year in accordance with §161 German Stock Corporation Act (AktG), they report on compliance with the recommendations of the GCGC and explain any possible deviations. In December of 2014, the Management Board

and Supervisory Board declared that they had complied with the recommendations of the GCGC with only a few exceptions and will continue to comply with them. Reasons for the exceptions are explained in detail.

The declaration of compliance in accordance with §161 AktG can be accessed by the public permanently on the company's website ► <u>www.solarworld.de/declaration-of-compliance</u>. The declarations from the past five years are also available there.

### MANAGEMENT AND MONITORING

SolarWorld AG has the dual management and monitoring structure legally specified for stock corporations with clear division of the staff of the management and supervising organs. The Management Board and Supervisory Board cultivate a trustful and result-oriented collaboration to ensure that efficient corporate management and monitoring is achieved.

#### MANAGEMENT BOARD

The Management Board of SolarWorld AG leads the company with the goal of affecting a long-term increase in the company's value. In line with section 4.1.1 of the GCGC, its leadership philosophy is oriented towards the interests of the different stakeholders of SolarWorld AG.

In compliance with section 4.1.5 of the GCGC, when filling leadership positions within the company, the Management Board of SolarWorld focuses on maintaining diversity and particularly on giving women a stronger consideration.

In 2014, 17.5 percent of the management positions in the SolarWorld group were occupied by women. SolarWorld's goal is to make the proportion of women in leadership positions equal to the proportion of women in the entire organization. During the previous fiscal year, this amount was at 25.2 percent.  $\triangleright$  Gender equality -p.053

Until April 2014, the Management Board was comprised of four, from then on of five members.

- Dr.-Ing. E. h. Frank Asbeck, 55, Chief Executive Officer (CEO), founder of the company; responsible for strategic group development, production and technology development as well as public relations including energy and environmental policy period of office: 1999 to January 9, 2019
- Dipl.-Wirtschaftsing. Frank Henn, 49, Chief Sales Officer (CSO); responsible for international sales including the areas after sales service, technical support and customer service period of office: 2004 to January 31, 2016

- Dipl.-Kfm. tech. Philipp Koecke, 43,
   Chief Financial Officer (CFO);
   responsible for the areas of finance, controlling, accounting and investor relations
   period of office: 2003 to April 30, 2019
- RAin Colette Rückert-Hennen, 54, Chief Information, Brand & Personnel Officer (CIBPO); responsible for the areas information technology, human resources, brand management, marketing, sustainability and compliance period of office: 2011 to June 30, 2017
- **Dipl.-Ing. Jürgen Stein**, 49, Chief Product Officer (CPO); responsible for the areas product management, product development, quality management, purchasing and supply chain management period of office: April 1, 2014 to March 31, 2017

The remuneration system of the Management Board and the specific compensation of each individual board member for the reporting period are described in detail in the ► Remuneration report − p. 098 et segg.

#### THE SUPERVISORY BOARD

In accordance with §§ 95 para. 1, 96 para. 1, 101 para. 1 AktG, the Supervisory Board is composed of representatives of the shareholders and is elected by the Annual General Meeting. The Supervisory Board elections for SolarWorld AG are generally carried out as individual appointments. During this process, the shareholders are not limited to the election suggestions made by the Supervisory Board, but can also nominate their own candidates.

The extraordinary shareholder's meeting of August 7, 2013, drafted a resolution that expanded the Supervisory Board of SolarWorld AG from three to six members. Until the end of the Annual General Meeting on May 30, 2014, the Supervisory Board was composed of the following members:

- Dr. Claus Recktenwald, chairman of the Supervisory Board
- **Dr. Georg Gansen,** deputy chairman of the Supervisory
- · Marc M. Bamberger, Supervisory Board member

The period of office for Dr. Claus Recktenwald and Mr. Marc M. Bamberger lasted until the end of the Annual General Meeting on May 30, 2014. Both Supervisory Board members did not renew their candidacy. On May 30, 2014, the Annual General Meeting of shareholders elected five new Supervisory Board members. Since that time, the supervisory organ of SolarWorld AG has been composed of the following:

- Dr. Georg Gansen, 55, chairman of the Supervisory Board
- Heiner Eichermüller, 58, deputy chairman of the Supervisory Board
- Dr. Khalid Klefeekh Al Hajri, 60, Supervisory Board member
- Faisal M. Alsuwaidi, 61, Supervisory Board member
- Dr. Andreas Pleßke, 53, Supervisory Board member
- · Jürgen Wild, 53, Supervisory Board member

Dr. Andreas Pleßke holds the following further mandates in supervisory boards or comparable monitoring bodies required by law:

- Chairman of the Supervisory Board of m.a.x. Informationstechnologie AG, Munich
- Chairman of the Supervisory Board of smartOne Consulting AG, Berg/Lake Starnberg

Jürgen Wild holds the following further offices in supervisory boards or comparable controlling bodies required by law:

 Member of the Supervisory Board of SAG Gruppe GmbH, Langen

The remaining Supervisory Board members do not hold any further mandates in Supervisory Boards or monitoring bodies with comparable requirements.

According to section 5.3.2 GCGC, the Supervisory Board should put together an auditing committee. In deviation from this recommendation, the Supervisory Board currently has not formed an auditing committee. The Supervisory Board can and should be obligated to evaluate how to do its work expediently to best fulfill its legal obligations and general responsibility. Due to the statutory appointment of a Supervisory Board with just six members, it was deemed more efficient to have the entire Supervisory Board deal

with the topics that would otherwise be assigned to an auditing committee instead of putting a separate committee together.

The remuneration system of the Supervisory Board and the concrete compensation of each individual board member for the reporting period are described in detail in the ► Remuneration report − p. 098.

# GOALS FOR THE COMPOSITION OF THE MANAGEMENT BOARD AND SUPERVISORY BOARD

### COMPETENCE

All Supervisory Board members of SolarWorld AG possess the necessary professional knowledge to properly carry out their duties. In compliance with section 5.4.5 GCGC, the Supervisory Board members are responsible on their own authority for obtaining training and further education when necessary to perform their duties.

### DIVERSITY

As a result of the financial restructuring, the Supervisory Board of SolarWorld AG has been composed of six members since May 30, 2014. This took into account the changed shareholder structure and the new major shareholders were able to suggest candidates for the Supervisory Board election. This brought a greater degree of diversity and internationality into the Supervisory Board. However, the gender-specific diversity requirements of the German Corporate Governance Code could not be met due to the election proposals made by the shareholders.

### **AGE PROVISION**

In concordance with the sections 5.1.2 and 5.4.1 of the GCGC, there is a unified age limit of 68 years for membership in the Management Board and Supervisory Board of SolarWorld AG. No member of the organization has currently reached or will be reaching this limit during the current period of office.

### **INDEPENDENCE**

Pursuant to section 5.4.1 para. 4 to 6 GCGC, the following must be disclosed about the Supervisory Board members:

The company Qatar Solar S.P.C, Doha, which Dr. Khalid Klefeekh Al Hajri is affiliated with, holds a 29 percent stake in SolarWorld AG. Furthermore, SolarWorld AG holds a stake of 29 percent in Qatar Solar Technologies Q.S.C, which Dr. Khalid Klefeekh Al Hajri is also affiliated with.

The Qatar Foundation for Education, Science and Community Development, in Doha, which Mr. Faisal M. Alsuwaidi is affiliated with, is in control of 100 percent of Qatar Solar Q.S.C., which holds a 29 percent stake in SolarWorld AG.

The remaining Supervisory Board members don't have any personal or business relationships that must be disclosed in accordances with section 5.4.1 para. 4 to 6 GCGC.

Therefore, the Supervisory Board of SolarWorld AG is composed of an appropriate amount of independent members in accordance with the recommendation of section 5.4.2 of the GCGC

The Supervisory Board is dedicated to pursuing the specific goal of ensuring that an appropriate number of independent members are always serving on the board now and in the future.

### NOMINATION OF CANDIDATES FOR THE SUPER-VISORY BOARD CHAIR BEFORE AN ELECTION

In accordance with the recommendation in section 5.4.3 GCGC, the shareholders should be informed of the nominated candidates for the chairmanship of the Supervisory Board before an upcoming Supervisory Board election. The Articles of Association in compliance with §107 para. 1 sentence 1 German Stock Corporation Act (AktG) do, however, allow the Supervisory Board to choose a chairman and deputy chairman from their midst directly following the Annual General Meeting. A nomination of the candidate or candidates for the position of chairman from the circle of Supervisory Board members that haven't been elected yet would correspond to a premature determination that is not intended. As a result, SolarWorld AG does not comply with this recommendation.

# SHARE OWNERSHIP OF THE MANAGEMENT BOARD AND SUPERVISORY BOARD

The Management Board and Supervisory Board cumulatively possess more than one percent of voting rights for Solar-World AG. On December 31, 2014, a total of 20.9 percent of the votes were allotted to the Management Board through direct and indirect share possession. The Supervisory Board members held a stake of 0.0045 percent in the company's capital stock on the cut-off date.

### TRANSPARENT COMMUNICATION

The investor relations department of SolarWorld AG is integrated into the organization very closely to the Management Board and reports directly to the Chief Financial Officer. It is responsible for complying with all legal post-admission obligations related to the capital market and stock market. Information that could potentially be relevant for the capital market is examined for its ad hoc relevance both internally and by external legal consultants. All publications subject to § 15 German Securities Trading Act (WpHG) go through the relevant media channels and are made available for distribution across Europe in accordance with the applicable legal requirements.

As recommended by the GCGC, all financial reports are conveyed to the Supervisory Board before publication and discussed in a shared meeting with the Management Board. We publish the Annual Group Report within 90 days following the end of the reporting period; the interim reports are similarly published on the company's website within 45 days. Reporting is provided in two languages: German and English.

Furthermore, SolarWorld AG prepares a corporate financial calendar each year with the most important upcoming dates and makes it available on the website.

In line with the fair disclosure principle, we treat all of our stakeholders equally with regard to information relevant for evaluation. The preferred platform for publication and communication is the Internet, since it facilitates the real-time, continual, and widespread distribution of information. We maintain German and English language versions of our

website so that international stakeholders also have access to the relevant information.

SolarWorld AG communicates intensively and transparently within the context of the quarterly analyst conferences as well as individual discussions, group meetings, and conferences with analysts, shareholder representatives, and institutional investors. The company also wants to maintain ongoing dialog with its private investors. Shareholders and loan providers can contact investor relations staff directly through the investor hotline or via email. Additionally, we also offer a bilingual newsletter service that provides timely information on the publication of ad hoc announcements and corporate news.

The current shareholder structure of SolarWorld AG can be seen on our website. Any reportable changes will be published here in due time after they are received by the company.

A variety of voting right notifications pursuant to §§ 21, 25 and 25a WpHG were made in the reporting period, which the company has subsequently published in accordance with §26 WpHG. You can find an overview on our website www.solarworld.de/notification-of-voting-rights

### ANNUAL GENERAL MEETING

Our shareholders can exercise the joint participation and monitoring rights associated with their shares in the Annual General Meeting. It is there that they get the chance to make use of their right to information, entitlement to speak, and voting right. When voting, one share always corresponds to one vote. The company has not issued any preferred shares devoid of the right to vote or shares that bestow special voting privileges. Our shareholders can exercise their right to vote themselves — either by physically participating and submitting a vote at the Annual General Meeting or by absentee ballot—or through a proxy appointed by the company and subject to instruction, or through an authorized person of the shareholders' choice.

All relevant information, documentation, and forms relating to the Annual General Meeting can be called up on our website within a sufficient period of time before the meeting and remain available until shortly after it is over.

### **COMPLIANCE MANAGEMENT SYSTEM**

In order to promote a culture of integrity throughout the whole company while also preventing corruption and legal violations, SolarWorld AG has constructed an extensive compliance management system and is continually developing it further. The global compliance officer is responsible for this. As the central control organ over all departments, the compliance committee meets under the leadership of the global compliance officer each quarter and whenever necessary. Its task is to give advice on potential for improvement to the compliance management system and to adopt concrete provisions for the purpose of further developing the system. In 2014, our compliance management focused on the integration of the new production site in Arnstadt into the compliance management system.

The groupwide code of conduct, which governs how economic, legal, and moral challenges are handled in everyday life at SolarWorld, is an important pillar of the compliance management system. Over the past fiscal year, this code was added to and made more tangible through various work instructions.

The compliance management system of SolarWorld also contains the whistleblower system SolarWorld SpeakUp. This makes it possible for all employees of the company as well as any of our main suppliers to report potential compliance-relevant incidents — also anonymously, if requested. In 2014, 1 (2013: 1) notice was submitted through the system; it was not a compliance case.

The measures named above are meant to sharpen awareness of potential compliance risks in the entire group and ensure professional handling of concrete incidents.

SolarWorld supports the "Call to Action" of the UN Global Compact for battling corruption and fostering good company management. Further information on the subject of compliance has been available on the SolarWorld homepage since 2014. www.solarworld.de/en/group/compliance/

### REMUNERATION REPORT

This remuneration report is part of the group management report and complies with the recommendations of the German Corporate Governance Code (GCGC) as well as the requirements of the German Commercial Code (HGB) and the German Accounting Standards (DRS 17). It explains the main points of the remuneration system for the Management Board and Supervisory Board and reports the amount of remuneration for each individual in accordance with its different components.

### REMUNERATION OF THE MANAGEMENT BOARD

The Supervisory Board of SolarWorld AG determines the remuneration system of the Management Board and negotiates with each Management Board member to determine the individual Management Board remuneration amounts derived from this system. The structure of the remuneration system targets the sustainable development of the company and accounts for the company's distinctive characteristics as well as the relevant industry environment. The financial situation of the SolarWorld group is also taken into account.

The remuneration system of SolarWorld AG is composed of non-performace related and performance-related components. In accordance with §87 German Stock Corporation Act (AktG), the total remuneration for an individual Management Board member is reasonably proportionate to his tasks and the situation of the company.

Management contracts do not contain any severance provision for the case of premature termination of an employment relationship.

### NON-PERFORMANCE RELATED REMUNERATION

Non-performace related components comprise fixed annual compensation and fringe benefits. The fixed annual compensation is to be paid in twelve monthly installments at the end of each month. Fringe benefits include use of a company car as well as payment of the costs for accident

and D&O insurance. The agreed deductible for the D&O insurance corresponds, in accordance with §93 para. 2 sentence 3 AktG, to at least 10 percent of each damage up to at least one and a half times the fixed annual compensation. In addition to that, the Chief Financial Officer (CFO), Chief Sales Officer (CSO), Chief Information Technology, Brand and Personnel Officer (CIBPO), and the Chief Product Officer (CPO) receive grants towards their health insurance. Moreover, the CFO, CSO, and CPO are provided with direct insurance in the highest amount permissible according to tax law. Work-related disbursements, expenses, and allowances are reimbursed in accordance with §670 of the German Civil Code (BGB).

CEO Dr.-Ing. E. h. Frank Asbeck voluntarily waived the fixed remuneration for his work on the Management Board of SolarWorld AG from July 2012 until the end of 2013 in order to ease the company's financial burden during the crisis. With the completion of financial restructuring and the acquisition of the solar activities of Bosch Solar Energy AG, Solar World achieved again profit after taxes during the fiscal year 2014. As a result, the CEO received his contractually agreed Management Board remuneration during the year covered in the report.

### PERFORMANCE-RELATED REMUNERATION

The remuneration system of SolarWorld AG contains a variable component that is linked to the economic development of the company. A sustainability component with a multi-year valuation basis completes the system.

The basis for determining the variable remuneration was changed fundamentally in fiscal year 2014. The amount of remuneration is now dependent on the degree to which the individual target values set for each Management Board member are reached, exceeded, or fallen short of. The key performance indicators whose development is used to measure the variable Management Board remuneration are return on sales calculated from consolidated EBITDA and revenue, groupwide shipments, and the achievement of predefined cost goals. The amount of annual perfor-

mance-related remuneration is limited to an individually agreed maximum amount for each Management Board member. This performance-related remuneration system will apply to the CFO starting in 2015. For 2014, the CFO's compensation was still subject to the former provision, under which the performance-related remuneration was based on the amount of a dividend distributed to the shareholders and was therefore not paid in 2014.

The variable remuneration of the Management Board members contains, as required under section 4.2.3 GCGC and §87 para. 1 sentence 3 AktG, a sustainability component that is dependent on the company's development over a time period of three years. Initially, only 75 percent of the variable bonus – to the extent that it is dependent on consolidated return on sales – associated with this past fiscal year will be advanced. After three years have passed, the final variable remuneration will be determined according to the average value from the last three years. If this turns out to be lower than the advance that has already been paid out. then no additional payment will be made. The advance is not recallable. If the final variable remuneration calculated according to the average value turns out to be higher than the advance that has already been paid, a supplementary payment will be made.

### **SPECIAL BONUS**

In order to ensure that the system fulfills its role as an incentive, the variable Management Board remuneration will be supplemented by special bonuses granted under certain circumstances. One example would be a special assignment carried out by the Management Board in economically difficult years that should be rewarded in order to maintain the competitiveness of Management Board remuneration. It is for this reason that the Supervisory Board, as the organ responsible for Management Board remuneration, may deem it appropriate to award Management Board members with a special bonus in addition to their variable remuneration in order to offer incentive.

Due to the special challenges that the CFO faced during the fiscal year in connection with the restructuring and Bosch acquisition, the CFO was awarded bonus compensation of  $k \in 300.0$  as an incentive and retention bonus.

### **PENSIONS**

There is no separate pension entitlement, which is why Management Board members are permitted to convert parts of their remuneration into company pension provisions.

### **MAXIMUM REMUNERATION**

In 2009, the Annual General Meeting decided to place an overall cap on Management Board remuneration per board member amounting to twenty times the average employee remuneration. On May 20, 2010, the Annual General Meeting also declared approval of the system for compensating members of the Management Board in accordance with § 120 para. 4 AktG. The Chairman of the Supervisory Board outlined the basic elements of the remuneration system and any changes thereto at the subsequent Annual General Meetings (section 4.2.3 GCGC).

The Management Board remuneration complies with all guidelines of acceptability and the stipulations of the GCGC and the law adopted on June 18, 2009, for Permissibility of Management Board Remuneration (VorstAG). Incidentally, Management Board remuneration at SolarWorld AG already adhered to these principles before the VorstAG came into force.

### **REMUNERATION OF THE MANAGEMENT BOARD 2014**

Altogether, the total remuneration of the Management Board for fiscal year 2014 amounted to k€ 2,275.6 (2013: k€ 1,808.6). The disclosure of Management Board remuneration for the fiscal year 2014 was done in accordance with the recommendation of the GCGC in its version from June 24, 2014 (section 4.2.5). The uniform model tables make it possible to display separately the contributions and the actual allocation (meaning the payments made) for the year being reported. When considering the allocation, the remuneration values must also be provided, which can be achieved in minimum or maximum. Furthermore, additional remuneration for Management Board membership in subsidiaries of SolarWorld AG are listed separately.

### MANAGEMENT BOARD REMUNERATION I: BENEFITS GRANTED

in k€	DrIng. E	. h. Frank	Asbeck		Frank He	enn			Philipp K	oecke		
			St	art: 1999			Sta	rt: 2004			Sta	ırt: 2003
	2013	2014	Min.	Max.	2013	2014	Min.	Max.	2013	2014	Min.	Max.
Fixed compensation	01)	270	270	270	294.8	307.5	307.5	307.5	303.8	308	308	308
Other compensation <sup>2</sup>	254.1	247.1	247.1	247.1	0	0	0	0	0	15	15	15
Fringe benefits (non-cash compensation)	10.8	12.4	12.4	12.4	11.9	12	12	12	23.8	23.8	23.8	23.8
Fringe benefits (grants)	0	0	0	0	3.9	4.1	4.1	4.1	3.6	3.7	3.7	3.7
Total (fixed components)	264.9	529.5	529.5	529.5	310.6	323.5	323.5	323.5	331.2	350.5	350.5	350.5
One-year variable compensation (bonus)	0	206.6	0	810	0	0	0	307.5	0	0	0	307.5
Multi-year variable compensation (sustainability components)	0	0	0	0	0	0	0	0	0	0	0	0
Special Bonus	0	0	0	0	150	0	0	0	300	300	300	300
Total (variable components)	0	206.6	0	810	150	0	0	307.5	300	300	300	607.5
Service cost	0	0	0	0	0	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Total compensation	264.9	736	529.5	1,339.5	460.6	325.3	325.3	632.8	632.9	652.2	652.2	959.7

**<sup>1</sup>** In 2013, CEO Dr.-Ing E. h. Frank Asbeck voluntarily waivered the fixed remuneration owed to him by SolarWorld AG. **2** Compensation for Management Board membership in subsidiaries of SolarWorld AG

2014	Sta						COO		er				
2014		rt: 2011			Start: April	1, 2014		Resign	ation: Feb	7, 2013			
	Min.	Max.	2013	2014	Min.	Max.	2013	2014	Min.	Max.			
270	270	270		225	225	225	45.5	0	0	0			
0	0	0	0	0	0	0	0	0	0	0			
8.2	8.2	8.2	0	5.8	5.8	5.8	2.5	0	0	0			
3.7	3.7	3.7	0	1.7	1.7	1.7	0.4	0	0	0			
281.9	281.9	281.9	0	232.4	232.4	232.4	48.4	0	0	0			
19.1	0	180	0	28.7	0	135	0	0	0	0			
0	0	0	0	0	0	0	0	0	0	0			
0	0	0	0	0	0	0	0	0	0	0			
19.1	0	180	0	28.7	0	135	0	0	0	0			
0	0	0	0	0	0	0	0	0	0	0			
301	281.9	461.9	0	261.1	232.4	367.4	48.4	0	0	0			
	0 0 19.1	0 0 0 0 19.1 0 0 0	0 0 0 0 0 0 0 19.1 0 180 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0     0     0     0     0     0     0       0     0     0     0     0     0     0     0       19.1     0     180     0     28.7     0     135     0       0     0     0     0     0     0     0	0     0     0     0     0     0     0     0       0     0     0     0     0     0     0     0     0       19.1     0     180     0     28.7     0     135     0     0       0     0     0     0     0     0     0     0     0	0         0			

100

### MANAGEMENT BOARD REMUNERATION II: ALLOCATION

in k€	DrIng. I Frank As CEO		Frank He	enn	Philipp K CFO	Koecke	Colette Rückert- CIBPO	Hennen	Jürgen S CPO	tein	Boris Klebensb COO <sup>1</sup>	erger
	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014
Fixed compensation	0	270	293.1	307.5	303.8	308	240	270		225	45.5	0
Other compensation	254.2	247.1	0	0	0	15	0	0	0	0	0	0
Fringe benefits (non-cash compensation)	10.8	12.4	11.9	12	23.8	23.8	8.2	8.2	0	5.8	2.6	0
Fringe benefits (grants)	0	0	3.9	4.1	3.6	3.7	3.6	3.7	0	1.7	0.4	0
Total (fixed components)	265.1	529.4	308.9	323.5	331.1	350.5	251.8	281.9	0	232.4	48.4	0
One-year variable compensation (bonus)	0	0	0	0	0	0	0	0	0	0	0	0
Multi-year variable compensation (sustain-ability components)	0	0	0	0	0	0	0	0	0	0	0	0
Special Bonus	0	0	150	0	300	300	150	0	0	0	0	0
Total (variable components)	0	0	150	0	300	300	150	0	0	0	0	0
Service cost	0	0	1.8	1.8	1.8	1.8	0	0	0	0	0	0
Total compensation	265.1	529.4	460.7	325.3	632.9	652.2	401.8	281.9	0	232.4	48.4	0
T 40												

<sup>1</sup> The activity of Mr. Klebensberger in his function as Board Member was terminated in February 2013. In fiscal year 2014, he received continued salary payments amounting to 284.8 k€.

### REMUNERATION OF THE SUPERVISORY BOARD

The Articles of Association specify that the Annual General Meeting shall determine the remuneration system for the Supervisory Board. Effective June 1, 2014, the Annual General Meeting of May 30, 2014, decided to change the system for Supervisory Board remuneration.

# REMUNERATION SYSTEM FOR THE SUPERVISORY BOARD EFFECTIVE JUNE 1, 2014

Every member of the Supervisory Board receives a yearly fixed remuneration of k€ 40.0 in addition to reimbursement for their expenditures in accordance with §670 German Civil Code (BGB).

In accordance with section 5.4.6 GCGC, the agreed remuneration system takes into account the chair and deputy

chair of the Supervisory Board as well as the chair and members of the committees. The chair of the Supervisory Board receives three times the fixed compensation, therefore earning  $k \in 120.0$ , and the deputy chair receives double the fixed compensation, so  $k \in 80.0$ . Thus, membership or chairmanship in committees are also compensated. Ordinary members receive an additional  $k \in 5.0$  in total for membership in one or more committees, in the case that the person is a committee chair in at least one committee they will instead receive double, which would be  $k \in 10.0$ . There is no entitlement to variable extra pay or separate attendance pay.

All amounts are given plus VAT, if such tax is applicable. If tenure as a member of the Supervisory Board is taken up or ended during the year, then remuneration will be awarded pro rata temporis.

# REMUNERATION SYSTEM FOR THE SUPERVISORY BOARD EFFECTIVE UNTIL MAY 31, 2014

Until May 31, 2014, the remuneration system of the Supervisory Board was based on the decision of the Annual General Meeting on May 24, 2011, concerning remuneration of the Supervisory Board. The system was composed of a fixed and a performance-related variable compensation plus fringe benefits and reimbursement of out-of-pocket expenses.

The fixed annual compensation for an ordinary member amounted to k€ 35.0, for the deputy chair it was k€ 52.5 and

for the chair it was k€ 70.0. An attendance fee of k€ 0.5 for each meeting and Annual General Meeting participation functioned as the reimbursement of out-of-pocket expenses. The variable remuneration was tied to the distribution of dividends and was determined by multiplying a basis amount of €2,639.055 with every determined dividend cent. Here, too, the Supervisory Board remuneration is given plus VAT, if such tax is due. Variable remuneration was based on the previously completed fiscal year and was due only after the Annual General Meeting where the decision was made concerning the distribution of dividends.

### **SUPERVISORY BOARD REMUNERATION 2014**

in k€	compe	Fixed ensation		Meeting ance fee	related	rmance- variable ensation	for o	ensation duties in mittees	comper	Other isation 1)	compe	Total ensation	
	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014	
Members of the Supervisor	y Board as	at 31/12	/2014										
Dr. Georg Gansen (chair- man since 30/5/2014, deputy chairman until 30/5/2014)	52.5	91.9	7	2.5	0	0	0	0	23.5	12.3	83	106.7	
Heiner Eichermüller (deputy chairman since 30/5/2014)	0	47.1	0	0	0	0	0	0	0	0	0	47.1	
Dr. Khalid K. Al Hajri (member since 30/5/2014)	0	23.3	0	0	0	0	0	0	0	0	0	23.3	
Faisal M. Alsuwaidi (member since 30/5/2014)	0	23.3	0	0	0	0	0	0	0	0	0	23.3	
Dr. Andreas Pleßke (member since 30/5/2014)	0	23.3	0	0	0	0	0	0	0	0	0	23.3	
Jürgen Wild (member since 30/5/2014)	0	23.3	0	0	0	0	0	0	0	0	0	23.3	
Resigned in fiscal year 2014	ļ												
Dr. Claus Recktenwald (chairman until 30/5/2014)	70	29.2	7	2.5	0	0	0	0	31	16	108	47.7	
Marc M. Bamberger (member until 30/5/2014)	14.1	14.6	2	2.5	0	0	0	0	0	0	16.1	17.1	
Resigned in fiscal year 2013	B												
Dr. Alexander von Bossel (member until 7/8/2013)	20.4	0	6	0	0	0	0	0	0	0	26.4	0	
Total compensation	157	276	22	7.5	0	0	0	0	54.5	28.3	233.5	311.9	

1 Compensation for Supervisory Board membership in subsidiary Solarparc AG

As far as the meeting attendance fee is concerned, up to May 31, 2014, there was officially a total of four Supervisory Board meetings and one Annual General Meeting, which corresponded to a total of  $k \in 2.5$  net. With respect to further details, we refer to the information in the table.

As in the previous year, the remuneration from Solarparc AG must be taken into account and disclosed for those members of the Supervisory Board of SolarWorld AG who were also members of the Supervisory Board of subsidiary Solarparc AG. Effective June 24, 2014, Solarparc AG was transformed into a limited liability company (GmbH) and as a result was no longer entitled to Supervisory Board remuneration starting on that date.

In addition to Supervisory Board remuneration, SolarWorld AG also takes responsibility for paying premiums for appropriate insurance protection in accordance with the legal liability inherent in duties on the Supervisory Board (D&O insurance). In accordance with section 3.8 GCGC, the Supervisory Board voluntarily agreed on July 1, 2010, to a deductible of at least 10 percent for each damage and up to at least one and a half times the fixed annual remuneration.

With regard to the disclosures recommended in the last paragraph of section 5.4.6 GCGC, it is also pointed out that Dr. Claus Recktenwald, who was Chairman of the Supervisory Board of SolarWorld AG until the Annual General Meeting from May 30, 2014, is a partner in the law firm of Schmitz Knoth Rechtsanwälte. This firm provided and provides legal advice and representation for the SolarWorld group through other partners and employees; it also takes care of the required international coordination.

With regard to own services provided from January 1, 2014, to May 27, 2014, the law firm Schmitz Knoth Rechtsanwälte billed SolarWorld AG  $k \in 249.1$  excluding VAT and tax-free disbursement for consultancy services. In addition, fees for court proceedings totaling  $k \in 10.5$  were charged in the period until the date mentioned above.

The consultancy fee for the subsidiaries of SolarWorld AG in this period amounted to a further  $k \in 90.7$ , comprising the respective net amounts of  $k \in 8.7$  by Solarparc AG,

k€ 60.6 by SolarWorld Industries Sachsen GmbH, k€ 1.1 by SolarWorld Industries Deutschland GmbH, k€ 1.0 by SolarWorld Solicium GmbH, k€ 12.3 by SolarWorld Industries Thüringen GmbH and k€ 7.1 by SolarWorld Innovations GmbH. This brings the company-related consultancy fee expenses to a total of k€ 339.8 (fiscal year 2013: k€847.8) In the area of legal representation of subsidiaries of SolarWorld AG, another k€ 64.1 net was disbursed, with k€ 1.5 for SolarWorld Industries Deutschland GmbH, further k€ 1.6 for SolarWorld Industries Schalke GmbH i.L.. k€ 0.9 for Solar Factory GmbH and the remainder of k€ 60.1 for Deutsche Solar GmbH, chiefly for pursuing claims arising from long-term contracts. Therewith, overall legal fees amounting to k€ 74.5 (fiscal year 2013: k€ 577.0) were incurred for legal representation, which are counterbalanced by substantial claims for refunds that reduced the burden for the group.

All individual items within the group amount to a total of  $k \in 414.4$  (fiscal year 2013:  $k \in 1,424.8$ ) and of that, an amount of  $k \in 259.6$  (fiscal year 2013:  $k \in 703.5$ ) was subject to approval by the SolarWorld AG.

All individual items as well as the total sum accepted by the company were approved by the Supervisory Board of SolarWorld AG, both, during the year and at a Meeting on May 28, 2014. Commissioning was approved in each individual case, and the necessity for and appropriateness of the measures were confirmed after completion of the services. This was based on a new framework agreement, dated February 7, 2012, which also provides for the adoption of an approval resolution by the Supervisory Board prior to the relevant cost settlement and a decision in the individual case that the consulting and representation activities provided by the law firm of Schmitz Knoth Rechtsanwälte, evidenced by the cost invoices including time statements submitted, only relate to those Management Board tasks that are not part of the original area of tasks of the Supervisory Board. The Supervisory Board is confident of the relevant facts so as to simultaneously confirm the proper mandate by the Management Board. Moreover, the Management Board has induced an annual review of their own.



**Supervisory Board of SolarWorld AG (f. l. t. r.):** Dr. Andreas Pleßke (member), Heiner Eichermüller (deputy chairman), Dr. Khalid Klefeekh Al Hajri (member), Dr. Georg Gansen (chairman), Faisal M. Alsuwaidi (member) and Jürgen Wild (member)

# REPORT BY THE SUPERVISORY BOARD 2014

### **DEAR SHAREHOLDERS,**

The 2014 fiscal year was once again characterized by a difficult market and continued fierce competition in the solar industry. With the successful closing of its financial restructuring process in February 2014, the SolarWorld group managed to accomplish a fresh start despite these challenging circumstances. In addition, the acquisition of the solar activities of Bosch Solar Energy AG in March allowed the group to considerably enhance production capacities, thus laying the foundations for the significant increase in groupwide shipments during the past fiscal year. The Supervisory Board would like to thank the staff, executives and Management Board of the SolarWorld Group for their extraordinary efforts and loyalty to the company.

### SUPERVISORY ACTIVITIES OF THE SUPERVISORY BOARD

The Supervisory Board once again accompanied the Management Board in an advisory capacity during the past fiscal year and supervised its activities on the basis of written and verbal reports, and meetings with the Management Board. In addition to these meetings, my predecessor, Dr. Claus Recktenwald, and I, were also both in regular contact with the Management Board in our capacity as Supervisory Board Chairman. The Management Board informed the Supervisory Board regularly and without delay on all issues relevant to the company's planning, including the financial, investment and HR planning; course of business, ongoing revenue, earnings and liquidity development; economic situation of the company and group, including risk situation and management; compliance within the group; strategic realignment within the framework of the restructuring processes developed and implemented by the Management Board; and important decisions and transactions relating to the company and group. As required by law and the rules of procedure for the Management Board, the Supervisory Board was involved in all decisions that were of fundamental importance to the company. This applied particularly in cases where mandatory approvals were required for transactions. The Supervisory Board also consulted external advisors where necessary. In addition, Supervisory Board members also visited production facilities and conducted talks with the responsible parties.

### **COMPOSITION OF THE SUPERVISORY BOARD**

Until May 30, 2014, the Supervisory Board was composed of Dr. Claus Recktenwald as Chairman, Mr. Marc M. Bamberger and myself. In accordance with the resolution adopted by the Annual General Meeting of May 30, 2014, the Supervisory Board is now composed of six shareholder representatives. These are Mr. Heiner Eichermüller. Dr. Khalid Klefeekh Al Hajri, Mr. Faisal M. Alsuwaidi, Dr. Andreas Pleßke, Mr. Jürgen Wild and myself. They are appointed until the end of the General Meeting that will ratify the actions of the members of the Supervisory Board for the 2019 fiscal year. I myself was already appointed in 2013 until the end of the General Meeting that will ratify the actions of the members of the Supervisory Board for the 2018 fiscal year. In the constitutive Supervisory Board meeting that was held immediately after the 2014 General Meeting, the members of the Supervisory Board elected Mr. Eichermüller as Deputy Chairman of the Supervisory Board and myself as its Chairman.

### **SUPERVISORY BOARD MEETINGS**

The Supervisory Board held a total of 10 meetings during the reporting period, which took place on January 20, February 26, March 17, May 28, May 30 (constitutive meeting of the newly elected Supervisory Board), June 23, September 16, October 29, November 10 and November 27. The meetings were generally held as physical meetings; the exception being the Supervisory Board meetings to go through the monthly financial reports with the Chief Financial Officer, which occurred as teleconferences as of July. The members of the Supervisory Board attended all of the meetings with the exception of Dr. Al Hajri on October 29 and November 27, Mr. Alsuwaidi on May 30 and November 27, and Mr. Wild on November 10.

### ADVISORY AND AUDITING PRIORITIES

The ongoing revenue, earnings and liquidity development, as well as the short and medium-term liquidity forecasts for the company, were the subject of all meetings, particularly of the monthly teleconferences for the financial reporting of the Chief Financial Officer. The focus of the advisory and supervisory activities during the year under review was on the critical monitoring of the restructuring and refinancing process in the company. In addition, we also focused on individual issues such as the contracts with silicon suppliers, the integration of SolarWorld Industries Thüringen into the group and the implementation of the measures in accordance with the restructuring plan. Other activities included the discussion of the group's brand strategy, the planning of human resources, the organization of international sales and the structural changes in global purchasing. The quarterly figures were submitted to the Supervisory Board and approved prior to publication. Finally, the Supervisory Board examined the annual financial statements and consolidated financial statements for the 2014 fiscal year in detail and concluded that there were no doubts concerning the legality and regularity of the Management Board.

### **COMMITTEES**

Due to the limited number of members, neither the former Supervisory Board that served until May 30, nor the new one that has served thereafter, formed any committees. The members are convinced that they can deal with all pending issues comprehensively and efficiently as a group.

## ADVISORY AND AUDITING ACTIVITIES ON THE 2014 ANNUAL AND CONSOLIDATED FINANCIAL STATEMENTS

The General Meeting appointed BDO AG Wirtschaftsprüfungsgesellschaft to audit the annual financial statements and consolidated financial statements of SolarWorld AG for the 2014 fiscal year, and the management report for the fiscal year from January 1, to December 31, 2014. The Supervisory Board subsequently discussed the audit mandate, determined the audit priorities and issued the audit assignment. The following audit priorities were agreed upon for the 2014 fiscal year: (i) accounting for the debt-to-equity swap, (ii) purchase price allocation of the new acquisition in Arnstadt and (iii) illustration of legal disputes and the associated litigation cost risks.

The annual financial statements for the fiscal year from January 1 until December 31, 2014, drawn up by the Management Board according to the HGB accounting rules, and the management report, of the SolarWorld AG, reviewed by the auditors, were awarded the unqualified audit opinion. The auditors also awarded an unqualified audit opinion to the consolidated financial statements and group management report, pursuant to § 315a HGB and drawn up on the basis of the international accounting rules IFRS, as required in the European Union. The auditors confirmed that the consolidated financial statements complied with the conditions required for exemption from the preparation of financial statements in accordance with German law. In addition, they also checked the early risk detection system at SolarWorld AG and determined that it fulfils the management responsibilities stipulated in the German Control and Transparency in Business Act (KonTraG).

The financial statements and audit opinion were presented to the Supervisory Board in good time. They were discussed in detail and checked in the presence of the auditors on February 26, 2015. The auditors reported on the audit procedure and the essential findings of the audit, particularly on the agreed audit priorities. The Supervisory Board recorded notes on the audit reports and discussed these with the Management Board.

Following its examination of the annual financial statements, the consolidated financial statements, the management report and the group management report, the Supervisory Board did not see any reasons for objections. The Supervisory Board approved the audit result and documents presented by the auditors on March 18, 2015. The annual financial statements and consolidated financial statements of SolarWorld AG are therefore now adopted.

## COMPLIANCE DECLARATION AND CORPORATE GOVERNANCE

Corporate governance plays a major role for the Supervisory Board. It presents its report on the topic together with the Management Board in the "Corporate Governance Report" section of the Annual Group Report. On December 15, 2014, the Supervisory Board and Management Board issued the annual declaration of compliance with the German Corporate Governance Code required by § 161 German Stock Corporation Act (AktG) and published it on the company's website.

The remuneration of Supervisory Board members is published in the "Remuneration Report" section of the Annual Group Report. In addition to the remuneration published in the report, Supervisory Board members also each received an expense allowance of € 500 plus any incurred VAT for the Supervisory Board meetings on January 20, February 26, March 17, May 28 and May 30. In an amendment to the Articles of Association adopted by the General Meeting on May 30, the shareholders decided that an expense allowance would no longer be paid and that in the future only actual expenses that were incurred would be reimbursed.

The Supervisory Board did not identify any conflicts of interest among its members during the 2014 fiscal year.

The examination of the efficiency of the Supervisory Board's own activities recommended by the German Corporate Governance Code was last performed during the 2013 fiscal year.

# CHANGES TO THE MANAGEMENT BOARD AND SUPERVISORY BOARD

Mr. Jürgen Stein was appointed to the Management Board as Chief Product Officer with effect from April 1, 2014. The circumstances of his appointment are in line with the tasks at hand and the market, and are in a balanced relation to the employment conditions of the other Management Board members. Mr. Stein is responsible for the areas of product management, product development, quality management, procurement and supply chain management.

Dr. Claus Recktenwald and Mr. Marc M. Bamberger stopped being members of the Supervisory Board at the end of the General Meeting on May 30. The Supervisory Board thanks them for their service to the company. Dr. Recktenwald in particular, as the longstanding Chairman was closely involved in the development of the company and significantly shaped the Supervisory Board's work.

Bonn, March 18, 2015

The Supervisory Board
Dr. Georg Gansen

Chairman

# CONSOLIDATED FINANCIAL STATEMENTS

- 111 CONSOLIDATED INCOME STATEMENT
- 112 STATEMENT OF CONSOLIDATED COMPREHENSIVE RESULT
- 113 CONSOLIDATED BALANCE SHEET AS AT DECEMBER 31, 2014
- 114 CONSOLIDATED STATEMENT OF CHANGES IN EQUITY
- 115 CONSOLIDATED CASH FLOW STATEMENT
- 116 CONSOLIDATED NOTES
  - 116 General disclosures
  - 139 Comments on the income statement
  - 148 Comments on the consolidated balance sheet
  - 156 Other disclosures
- **169 AUDIT OPINION**
- 170 RESPONSIBILITY STATEMENT

# **CONSOLIDATED FINANCIAL STATEMENTS**

# FOR THE BUSINESS YEAR JANUARY 1, 2014 TO DECEMBER 31, 2014

### CONSOLIDATED INCOME STATEMENT

in k	€	Notes	2014	2013
1.	Revenue	2.23, 3, 15	573,382	455,821
2.	Change in inventories of finished goods and work in progress	2.11, 2.23, 24	36,328	-91,925
3.	Own work capitalized	4	1,438	542
4.	Other operating income	2.23, 5	232,784	59,287
5.	Cost of materials	6	-422,938	-272,666
6.	Personnel expenses	7	-138,281	-112,366
7.	Amortization and depreciation	2.8, 8, 16	-45,440	-41,877
8.	Other operating expenses	2.23, 9	-174,898	-185,480
9.	Operating result		62,375	-188,664
10.	Result from investments measured at equity	2.3.2, 11, 20	-9,578	-5,309
11.	Interest and similar financial income	2.23, 11	496	373
12.	Interest payable and similar financial expenses	2.23, 11	-38,353	-70,286
13.	Other financial result	2.23, 11	557,709	-1,517
14.	Financial result		510,274	-76,739
15.	Result before taxes on income		572,649	-265,403
16.	Taxes on income	2.24, 12	-108,485	37,097
17.	Consolidated net result		464,164	-228,307
	Of which attributable to:			
	- Shareholders of SolarWorld AG		464,164	-228,307
18.	Earnings per share	13		
	a) Weighted average number of shares outstanding (in 1,000)		12,794	739
	b) Consolidated net result (in €)		36.28	-309.09

111

### STATEMENT OF CONSOLIDATED COMPREHENSIVE RESULT

in k€ – Note 14	2014	2013
Consolidated net result	464,164	-228,307
Actuarial losses		
Actuarial losses, before tax	-1,818	-271
Deferred taxes on actuarial profits / losses	543	81
Actuarial losses, net of tax	-1,275	-190
Items not to be reclassified to profit or loss	-1,275	-190
Exchange differences from currency translations		
Unrealized currency translation gains/losses	17,492	-4,085
Deferred taxes relating to exchange differences on translating foreign operations	-12,352	906
Exchange differences from currency translations, net of tax	5,140	-3,179
Items that may be reclassified subsequently to profit/loss	5,140	-3,179
Other comprehensive net result	3,865	-3,369
Of which:		
Other comprehensive result before tax	15,674	-4,356
Deferred taxes relating to other compehensive result	-11,809	987
Total comprehensive result	468,029	-231,676
Of which attributable to:		
- Shareholders of SolarWorld AG	468,029	-231,676

T 43

### **CONSOLIDATED BALANCE SHEET AS AT DECEMBER 31, 2014**

Ass	ets in k€	Notes	Dec 31, 2014	Dec 31, 2013
Α.	Non-current assets		412,044	483,003
l.	Intangible assets	2.6, 2.8, 16, 17	13,800	8,425
II.	Property, plant and equipment	2.7, 2.8, 16, 18	344,735	306,866
III.	Investment property	2.9, 16, 19	14,795	15,106
IV.	Investments measured at equity	2.3.2, 20	10,583	18,891
V.	Other financial assets	2.14, 21, 40	5,254	360
VI.	Other non-current assets	2.10, 23	21,310	11,977
VII.	Deferred tax assets	2.24, 12, 22	1,567	121,378
В.	Current assets		494,270	441,800
l.	Inventories	2.11, 24	158,063	119,151
II.	Trade receivables	2.12, 25	75,851	48,859
III.	Current income tax assets	2.24, 12, 26	809	1,353
IV.	Other receivables and assets	2.13, 27	32,030	25,234
V.	Other financial assets	2.14, 2.18, 28, 40	50,420	83,541
VI.	Liquid funds	2.15, 29, 40, 41	177,097	163,662
c.	Assets held for sale	2.16, 29	9,027	7,032
			915,341	931,835

Εqι	uity and liabilities in k€	Notes	Dec 31, 2014	Dec 31, 2013
Α.	Equity	31	238,668	-243,084
I.	Equity attributable to shareholders of SolarWorld AG		238,668	-243,084
	1. Subscribed capital		14,896	110,795
	2. Capital reserve		158	68
	3. Other reserves		11,234	7,369
	4. Accumulated results		212,380	-361,317
В.	Non-current liabilities		508,974	600,022
l.	Non-current financial liabilities	2.17, 2.18, 32, 40	391,582	536,629
II.	Accrued investment grants	2.19, 33	29,101	31,105
	Non-current provisions	2.20, 2.21, 34	33,772	29,414
IV.	Other non-current liabilities	2.22, 25	111	302
V.	Deferred tax liabilities	2.24, 12, 36	54,408	2,573
c.	Current liabilities		167,699	574,897
I.	Current financial liabilities	2.17, 2.18, 32 ,40	58,297	485,508
II.	Trade payables	2.17, 40	42,291	17,456
III.	Income tax liabilities	2.24, 12, 37	2,987	6,345
IV.	Current provisions	2.21, 34	15,674	11,075
V.	Other current liabilities	2.22, 25	48,450	54,513
•••••			915,341	931.835

113

### CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

				Other reserves		
in k€ – Notes 2.4, 31	Subscribed capital	Capital reserve	Currency translation reserve	IAS 19 reserve	Accumulated results	Total
As at Jan 1, 2013	110,795	296,562	11,176	-438	-429,504	-11,409
Allocation to revenue reserves	-	-296,494	-	-	296,494	-
Total comprehensive result	-	-	-3,179	-190	-228,307	-231,676
As at Dec 31, 2013	110,795	68	7,997	-628	-361,317	-243,084
Capital reduction	-110,056	-	-	-	110,056	-
Capital increase by contribution in kind	14,151	-	-	-	-604	13,547
Disposal of treasury shares	6	90	-	=	81	177
Total comprehensive result	-	-	5,140	-1,275	464,164	468,029
As at Dec 31, 2014	14,896	158	13,137	-1,903	212,380	238,668

T 45

### CONSOLIDATED CASH FLOW STATEMENT

in k€	– Note 41	2014	2013
	Result before tax	572,649	-265,403
+	Amortization and depreciation	45,440	41,877
+	Financial result (excluding profits and losses from currency translation and restructuring profit)	48,545	75,668
-	Profit from disposal of assets	-1,430	-470
-	Reversal of accrued investment grants	-4,813	-6,522
-	Gain resulting from a business combination (badwill)	-136,522	0
-/+	Other material non-cash income/expenses	-534,474	83,025
=	Cash flow from operating result	-10,605	-71,825
+/-	Changes in prepayments and customer advances	15,931	-1,727
-/+	Increase/decrease in inventories	-33,299	94,448
-/+	Increase/decrease in trade receivables	-28,979	7,345
+/-	Increase/decrease in trade payables	20,854	-13,711
+	Development in other net assets	3,459	10,186
=	Cash flow from operating result and changes in net assets	-32,639	24,714
+	Interest received	376	336
-	Taxes on income paid	-4,426	-7,726
=	Cash flow from operating activities	-36,689	17,324
-	Cash payments for investments in fixed assets	-12,387	-24,221
+	Cash receipt investment grants	8,288	10
+	Cash receipts from the disposal of fixed assets	5,832	302
+	Cash receipts from negative purchase price	81,000	0
=	Cash flow from investing activities	82,733	-23,909
+	Cash receipts from borrowings	52,592	0
-	Cash payments from the repayment of loans	-61,374	-1,778
-	Interest and restructuring expenses paid	-28,651	-50,454
-	Cash payments for equity measures	-862	0
+	Cash receipts from the disposal of treasury shares	177	0
=	Cash flow from financing activities	-38,118	-52,232
+/-	Net changes in cash and cash equivalents	7,926	-58,817
+/-	Currency and consolidation-related change of cash and cash equivalents	5,509	-1,630
+	Cash and cash equivalents at the beginning of the period	163,662	224,109
=	Cash and cash equivalents at the end of the period	177,097	163,662

115

# **CONSOLIDATED NOTES**

# GENERAL DISCLOSURES AND ACCOUNTING POLICIES

### 1. GENERAL INFORMATION

SolarWorld AG is a listed corporation domiciled at Martin-Luther-King-Straße 24, Bonn, Germany. SolarWorld AG's Management Board prepared the consolidated statements on March 17, 2015.

SolarWorld group is the largest manufacturer of solar power products outside of Asia. SolarWorld AG and its subsidiaries research, develop, produce and recycle on all levels of the solar value added chain. The focus of operations is on the production and international distribution of high-end solar energy facilities — from rooftop solar systems to components for outdoor solar parks. The products can be used both in the on- and off-grid area.

In accordance with § 315a HGB, SolarWorld AG prepared its consolidated financial statements per Dec. 31, 2014 pursuant to the International Financial Reporting Standards (IFRS) of the International Accounting Standards Board (IASB) as applicable in the European Union ("EU-Endorsement") at balance sheet date as well as to the interpretations of the International Financial Reporting Interpretations Committee (IFRIC). In addition, the commercial law regulations further stated in § 315a para. 1 HGB were taken into account. All mandatory applicable standards and interpretations have been considered. IFRS that have not yet entered into force have not been adopted.

The consolidated financial statements are prepared in Euro. Unless otherwise stated, all amounts are rounded either up or down to the nearest full thousand ( $k \in$ ) in accordance with commercial rounding.

The income statement was prepared in accordance with the nature of expense method. Balance sheet classifications follow maturities. For the purpose of clear and more comprehensive presentation, individual items are combined on balance sheet and income statement. Additional details are given in the notes where those items are presented separately.

### 2. SIGNIFICANT ACCOUNTING POLICIES

#### 2.1 BASIS OF PREPARATION

The consolidated financial statements have been in principle prepared on the historical cost basis. However, a number of Group's accounting policies and disclosures require the measurement of fair values, for both financial and non-financial assets and liabilities, as explained in the accounting policies below.

Historical cost is generally based on the fair value of the consideration given exchange for goods and services.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, regardless whether that price is directly observable or estimated using another valuation technique.

In estimating the fair value of an asset or liability, SolarWorld group takes into account the characteristics of the asset or liability if market participants would take those characteristics into account when pricing the asset or liability at measurement date. Fair value for measurement and/or disclosure purposes in these consolidated financial statements is determined on such a basis, except for measurements that have some similarities to fair value but are not fair value, such as realizable value in IAS 2 or value in use in IAS 36.

A market price is not always being readily available and a fair value cannot be reliably determined, but must often be calculated based on different measurement parameters. For financial reporting purposes, fair value measurements are categorized into Level 1, 2 or 3 based on the degree to which the inputs to the fair value measurements are observable and the significance of the inputs to the fair value measurement in its entirety, which are described as follows:

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date.
- Level 2 inputs are inputs, other than quoted prices included within Level 1, that are observable for the asset or liability, either directly or indirectly; and
- · Level 3 inputs are unobservable inputs for the asset or liability.

If the inputs used to measure the fair value of an asset or a liability fall into different levels of the fair value hierarchy, then the fair value measurement is categorised in its entirety in the same level of the fair value hierarchy as the lowest level input that us significant to the entire measurement.

SolarWorld group recognizes transfers between levels of the fair value hierarchy at the end of the reporting period during which the change has occurred.

The principal accounting policies are set out below. They basically correspond with those principles applied last year except for those stated as an exception from that rule below.

### 2.2 CHANGES IN ACCOUNTING POLICIES

## First-time mandatory application of standards and interpretations in 2014

The following standards and interpretations or substantial amendments were to be applied in 2014 for the first time:

On May 12, 2011, the IASB published three new (IFRS 10, 11 and 12) and two revised (IAS 27 and 28) standards that comprise new consolidation regulations (so-called "consolidation package"). The new and amended standards are applicable for fiscal years beginning on or after January 1, 2013. In the context of the endorsement, which took place on December 11, 2012, the IASB deferred the mandatory effective date for fiscal years beginning on or after January 1, 2014. The amendments do not materially affect the consolidated financial statements of SolarWorld AG.

- IFRS 10 CONSOLIDATED FINANCIAL STATEMENTS. The standard introduces a single definition for the concept of control for all entities, thus creating a standard basis for determining whether a parent-subsidiary relationship exists and should be included in the scope of consolidation. The standard contains comprehensive guidance for determining whether control exists. It completely replaces SIC-12 "Consolidation Special Purpose Entities" and partly replaces IAS 27 "Consolidated and Separate Financial Statements". The adoption of IFRS 10 has not changed the scope of consolidation of SolarWorld AG.
- IFRS 11 JOINT ARRANGEMENTS. This standard replaces the current provisions of IAS 31 ("Interests in joint ventures") and SIC 13 ("Jointly controlled entities – non-monetary contributions by ventures") and includes provisions regarding identification, classification and recognition of joint arrangements. Only two types of joint arrangements exist anymore: Joint Ventures that may only be accounted for using the equity method from now on (i.e. quota consolidation is no longer permitted) and Joint  $Operations that \ directly \ recognize \ in \ their \ consolidated \ financial$ statements all assets, liabilities, expenses and revenue from such joint operation in relation to their interest in such joint operation. The consolidated financial statements of SolarWorld AG recognized both investments in associates and joint ventures in accordance with the equity method already in the past. The amendments therefore do not affect the consolidated financial statements of SolarWorld AG.
- IFRS 12 DISCLOSURE OF INTERESTS IN OTHER ENTITIES. IFRS 12 determines the necessary disclosures for entities that are required in accordance with the new standards IFRS 10 and 11. The standard replaces the disclosure requirements currently included in IAS 28 "Investments in Associates" and the disclosure requirements regarding consolidated financial statements included in IAS 27. The objective is to enable the user of financial statements to better evaluate the type, risks and financial consequences of interests in other entities.

- IAS 27 SEPARATE FINANCIAL STATEMENTS. The newly issued IFRS
  10 and 12 now provide separate regulations on consolidated
  financial statements. The amended IAS 27 now focuses solely
  on accounting and disclosure requirements for investments in
  subsidiaries, joint ventures and associates when separate financial statements according to IFRS are presented and was hence
  renamed accordingly.
- IAS 28 INVESTMENTS IN ASSOCIATES. With the introduction of IFRS 10, 11 and 12, the adjusted IAS 28 governs accounting for investments in associates and the requirements for the application of the equity method upon recognition of investments in associates and joint ventures.

On June 28, 2012, amendments of IFRS 10, IFRS 11 and IFRS 12 were published to clarify the legislative content of certain transitional guidelines regarding their first time application. As a basic rule, entities shall apply the amendments of the transitional guidelines for accounting periods beginning on or after January 1, 2013. Initial application in the EU is mandatory for accounting periods beginning on or after January 1, 2014. The amendments do not materially affect the consolidated financial statements of SolarWorld AG.

On October 31, 2012, amendments of IFRS 10, IFRS 12 and IAS 27 were published that are mandatorily effective for accounting periods beginning on or after January 1, 2014. Herein, investment entities are defined as an independent type of companies and exempted from the consolidation regulations of IFRS 10. Instead, investment entities have to present interests held for investment purposes at fair value. The amendments do not affect the consolidated financial statements of SolarWorld AG.

IAS 32 – OFFSETTING FINANCIAL ASSETS AND FINANCIAL LIABILITIES. The standard was published on December 16, 2011 and was adopted into European law on December 13, 2012. The amendments of IAS 32 clarify existing application problems with regard to offsetting criteria for financial assets and financial liabilities. The amendments especially clarify the meaning of the terms "currently has a legally enforceable right of set-off" and "simultaneous realization and settlement". The amendments of IAS 32 are mandatorily effective for accounting periods beginning on or after January 1, 2014, and shall be applied retrospectively. The amendments do not materially affect the consolidated financial statements of SolarWorld AG.

### AMENDMENTS TO IAS 36 - RECOVERABLE AMOUNT DISCLOSURES FOR NON-FINAN-

**CIAL ASSETS.** On May 29, 2013 the IASB issued "Recoverable Amount for Disclosures for Non-Financial Assets (Amendments to IAS 36)" that address changes of the disclosure requirements of IAS 36. They were adopted into European law on December 19, 2013. The amendments realize the IASB's original intention that the scope of the disclosures is limited to the recoverable amount of non-financial assets for which an impairment loss has been recognized or reversed during the period if that amount is based on fair value less costs of disposal. In addition, the disclosure requirements have been amended when the recoverable amount is based on fair value less costs of disposal. The amendments are effective retrospectively for accounting periods beginning on or after January 1, 2014, while earlier application was permitted in so far as IFRS 13 had already been applied. The amendments do not materially affect the consolidated financial statements of SolarWorld AG.

AMENDMENTS TO IAS 39 – NOVATION OF DERIVATIVES AND CONTINUATION OF HEDGE ACCOUNTING. On June 27, 2013 the IASB issued "Novation of Derivatives and Continuation of Hedge Accounting (Amendments to IAS 39)" that amends IAS 39 Financial Instruments. They were adopted into European law on December 19, 2013. The amendments allow hedge accounting to continue in a situation where a derivative, which has been designed as a hedging instrument, is novated to effect clearing with a central counterparty as a result of law or regulation, if specific conditions are met. The amendments are effective retrospectively for accounting periods beginning on or after January 1, 2014, while earlier application was permitted. The amendments do not materially affect the consolidated financial statements of SolarWorld AG.

**IFRIC 21 - LEVIES.** On May 20, 2013 the IASB issued IFRIC 21 "Levies", an interpretation of IAS 37 "Provisions, Contingent Liabilities and Contingent Assets" that was adopted into European law on June 13, 2014. The interpretation determines the accounting for levies imposed by governments, other than income taxes according to IAS 12, and clarifies in particular when an entity should recognize a liability to pay a levy. The interpretation is mandatorily effective for accounting periods beginning on or after January 1, 2014, while earlier application was permitted. The amendment does not materially affect the consolidated financial statements of SolarWorld AG.

#### AMENDMENTS TO IAS 19 - DEFINED BENEFIT PLANS: EMPLOYEE CONTRIBUTIONS.

On November 21, 2013 the IASB issued narrow-scope amendments to IAS 19 "Employee Benefits" titled "Defined Benefit Plans: Employee Contributions (Amendments to IAS 19)" that were adopted into European law on December 17, 2014. The amendments are applicable to recognizing contributions of employees or third parties to defined benefit plans. Hereby it will be allowed to recognize employees' or third parties' contributions as a reduction of current service costs in the period in which the corresponding servicing has been rendered if the contributions are independent of the number of years of employee service. The amendments to IAS 19 are to be applied for accounting periods beginning on or after July 1, 2014; earlier application was permitted. The amendments do not materially affect the consolidated financial statements of SolarWorld AG.

**IMPROVEMENTS TO IFRS.** On December 12, 2013, the IASB issued the annual improvements for the 2010 to 2012 cycle in terms of smaller and less urgent adjustments that were also adopted into European law on December 17, 2014. The following selected contents of the collective standard regarding improvements of IFRS had to be taken into account upon preparing the consolidated financial statements for SolarWorld group:

- IFRS 2 SHARE-BASED PAYMENT: Amends the definitions of "vesting condition" and "market condition" and adds definitions for "performance condition" and "service condition" (which were previously part of the definition of "vesting condition").
- IFRS 3 BUSINESS COMBINATIONS: Clarifies that contingent consideration that is classified as an asset or a liability shall be measured at fair value at each reporting date.
- IFRS 8 OPERATING SEGMENTS: Requires an entity to disclose the judgments made by management in applying the aggregation criteria to operating segments. Clarifies that an entity shall only provide reconciliations of the total of the reportable segments' assets to the entity's assets if the segment assets are reported regularly.
- IFRS 13 FAIR VALUE MEASUREMENT: Clarifies that issuing IFRS 13 and amending IFRS 9 and IAS 39 did not remove the ability to measure short-term receivables and payables with no stated interest rate at their invoice amounts without discounting if the effect of not discounting is immaterial.

- IAS 16 PROPERTY, PLANT AND EQUIPMENT: Clarifies that when an item
  of property, plant and equipment is revalued the gross carrying
  amount is adjusted in a manner that is consistent with the
  revaluation of the carrying amount.
- IAS 24-RELATED PARTY DISCLOSURES: Clarifies that an entity providing key management personnel services to the reporting entity or to the parent of the reporting entity is a related party of the reporting entity.
- IAS 38 INTANGIBLE ASSETS: Clarifies that when an intangible asset is revalued, the gross carrying amount is adjusted in a manner that is consistent with the revaluation of the carrying amount.

The amendments are mandatorily effective for accounting periods beginning on or after July 1, 2014. The amendments do not materially affect the consolidated financial statements of SolarWorld AG.

**IMPROVEMENTS TO IFRS.** On December 12, 2013, the IASB also issued the annual improvements for the 2011 to 2013 cycle in terms of smaller and less urgent adjustments that were adopted into European law on December 18, 2014. The following selected contents of the collective standard regarding improvements of IFRS had to be taken into account upon preparing the consolidated financial statements for SolarWorld group:

- IFRS 3 Business Combinations: Clarifies that IFRS 3 excludes from its scope the accounting for the formation of a joint arrangement in the financial statements of the joint arrangement itself.
- IFRS 13 Fair Value Measurement: Clarifies that the scope of the portfolio exception defined in paragraph 52 of IFRS 13 includes all contracts accounted for within the scope of IAS 39 "Financial Instruments: Recognition and Measurement" or IFRS 9 "Financial Instruments", regardless of whether they meet the definition of financial assets or financial liabilities as defined in IAS 32 "Financial Instruments: Presentation".
- IAS 40 Investment Property: The acquisition of investment property can meet the definition of both the acquisition of an asset a group of assets or a business combination in the scope of IFRS 3. It is clarified that in case the conditions of a business combination in the scope of IFRS 3 are met and the business combination includes investment property, the separate application of both standards independently of each other is required.

The amendments are mandatorily effective for accounting periods beginning on or after July 1, 2014. The amendments do not materially affect the consolidated financial statements of SolarWorld AG.

### Standards and interpretations not yet mandatory

In the current period, SolarWorld AG did not apply any non-mandatory standards early.

The following accounting standards were passed in 2014 however not yet adopted into European law by the EU as of December 31, 2014:

IFRS 9 - FINANCIAL INSTRUMENTS. On November 12, 2009 the IASB issued the new standard IFRS 9 "Financial Instruments" on the classification and measurement of financial assets. This standard is the first part of the three-part project to replace completely IAS 39 "Financial Instruments: Recognition and Measurement". In accordance with the approach of IFRS 9 financial assets are measured at amortized cost or fair value. The classification to one of the two measurement categories is based on how an entity manages its financial instruments (so-called business model) and the contractual cash flow characteristics of the financial assets. On October 28, 2010 the IASB issued requirements on the accounting for financial liabilities which amend IFRS 9 "Financial Instruments" and complete the classification and measurement phase of the IASB's project to replace IAS 39 "Financial Instruments: Recognition and Measurement". With the new requirements, an entity choosing to measure liability at fair value will recognize the portion of the change in its fair value due to changes in the entity's own credit risk in other comprehensive income within equity and not in profit and loss. Issuing amendments to IFRS 9 "Financial Instruments" and to IFRS 7 "Financial Instruments: Disclosures" on December 16, 2011, the IASB defers the mandatory effective date of IFRS 9 from January 1, 2013 to January 1, 2015. In addition, the amendment provides relief from the requirement to restate comparative financial statements for the effect of applying IFRS 9; earlier application is permitted. Instead, additional transition disclosures have been added to IFRS 7 to help users of the financial statements to understand the effect that the initial application of IFRS 9 has on the classification and measurement of financial instruments. On November 19, 2013 the IASB issued amendments to IFRS 9 "Financial Instruments" (Hedge

Accounting and Amendments to IFRS 9; IFRS 7 and IAS 39). The amendments to IFRS 9 establish a new model that represents a substantial overhaul of hedge accounting that will enable entities to better reflect their risk management activities in their financial statements. In addition, extensive disclosures are required. Moreover, recognizing fair value changes of liabilities due to credit rating within equity will be possible to be earlier adopted without applying the complete regulations of IFRS 9. Furthermore, the IASB decided to abandon the mandatory date of January 1, 2015; a new date should be decided upon when the entire IFRS 9 project is closer to completion. On July 24, 2014 the IASB issued the final version of IFRS 9 "Financial Instruments". The new version includes revised requirements for the classification and measurement of financial assets and for the first time regulations on the impairment of financial instruments; with the new "expected loss model" losses are recognized earlier because both existing and expected losses are recognized. The new regulations must be applied for fiscal years beginning on or after January 1, 2018. In general they must be applied retrospectively, but various transition options are allowed; earlier application is permitted. The EU has not yet endorsed the standard. Currently, Management is not able to finally assess what impact adoption of the standard will have - if endorsed by the EU in the current version.

**AMENDMENTS TO IFRS 11 – JOINT ARRANGEMENTS.** On May 6, 2014 the IASB issued amendments to IFRS 11 "Joint Arrangements" clarifying that both the initial and subsequent acquisition of interests in a joint operation that constitutes a business must be accounted for in line with the principles of IFRS 3 "Business Combinations" except where these principles conflict with the guidance in IFRS 1.1. In addition, the disclosure requirements of IFRS 3 must be met. The amendments are to be applied for fiscal years beginning on or after January 1, 2016; earlier application is permitted. The EU has not yet endorsed the amendments. Currently, Management does not expect the amendments — if endorsed by the EU in the current version — to have a material impact on the Group's consolidated financial statements.

AMENDMENTS TO IAS 16 – PROPERTY, PLANT AND EQUIPMENT" AND IAS 38 – INTANGIBLE ASSETS. On May 12, 2014 the IASB issued amendments to IAS 16 "Property, Plant and Equipment" and IAS 38 "Intangible Assets" providing additional guidelines for determining an acceptable method of depreciation or amortization. The amendments clarify that revenue-based methods are not appropriate for calculating the depreciation of property, plant and equipment and are only appropriate in limited circumstances for calculating the amortization of intangible assets. The amendments are to be applied for fiscal years beginning on or after January 1, 2016; earlier application is permitted. The EU has not yet endorsed the amendments. Currently, Management does not expect the amendments – if endorsed by the EU in the current version – to have a material impact on the Group's consolidated financial statements.

IFRS 15 - REVENUE FROM CONTRACTS WITH CUSTOMERS. On May 28, 2014 the IASB issued the new standard IFRS 15 "Revenue from Contracts with Customers". The purpose of the new standard on revenue recognition is to bring together the large number of existing guidelines contained in various standards and interpretations. At the same time it establishes uniform core principles to be applied to all industries and all types of revenue transactions. A 5-step model is used to determine at which point in time or over which period of time revenues are to be recognized and in what amount. The standard also includes further detailed guidance and extended disclosure requirements. The new standard has to be applied for fiscal years beginning on or after January 1, 2017. In general it must be applied retrospectively, but various transition options are allowed; earlier application is permitted. The EU has not yet endorsed the standard. Currently, Management is not able to finally assess what impact adoption of the standard will have – if endorsed by the EU in the current version

AMENDMENTS TO IFRS 10 - CONSOLIDATED FINANCIAL STATEMENTS AND IAS 28 - INVESTMENTS IN ASSOCIATES AND JOINT VENTURES (2011). On September 11, 2014 the IASB issued amendments to IFRS 10 "Consolidated Financial Statements" and IAS 28 "Investments in Associates and Joint Ventures (2011)". The amendments address a well-known inconsistency between the two standards regarding the accounting of the sale or contribution of assets between an investor and its associate or joint venture. When a transaction involves a business in accordance with IFRS 3, a full gain or loss has to be recognized by the investor, when the transaction involves assets that do not constitute a business, only a partial gain or loss has to be recognized. The amendments are to be applied for fiscal years beginning on or after January 1, 2016; earlier application is permitted. The EU has not yet endorsed the amendments. Currently, Management does not expect the amendments – if endorsed by the EU in the current version – to have a material impact on the Group's consolidated financial statements.

IMPROVEMENTS TO IFRS. On September 25, 2014 the IASB issued the annual improvements for the 2012 to 2014 cycle in terms of smaller and less urgent adjustments that have not yet been adopted into European law. In the context amendments of four standards were published: IFRS 5 "Non-current Assets held for Sale and Discontinued Operations", IFRS 7 "Financial Instruments: Disclosures", IAS 19 "Employee Benefits" and IAS 34 "Interim Financial Reporting". The amendments are effective for fiscal years beginning on or after January 1, 2016 and have to be applied prospectively or retrospectively depending on the respective amendment; earlier application is permitted. Currently, Management does not expect the amendments — if endorsed by the EU in the current version — to have a material impact on the Group's consolidated financial statements.

The following new or amended standards are not expected to have any or any significant impact of the group's consolidated financial statements and are not presented in detail:

New or amended standards	Possible impact on consolidated finacial statements				
IFRS 14 Regulatory Deferral Accounts	<b>None.</b> The standard is available only to first-time adopters of IFRSs.				
Amendments to IFRS 10, IFRS 12 and IAS 28 Investment Entities: Applying the consolidation exception	None. The amendments address issues that have arisen in the context of applying consolidation exception for investment entities.				
Amendments to IAS 1 Disclosure initiative	Not expected to have a significant impact. The amendments aim at clarifying IAS 1 to address perceived impediments to preparers exercising their judgement in presenting their final reports. The initiative is made up of a number of smaller measures aimed at improving the presentation and disclosure principles and requirements in existing Standards.				
Amendment to IAS 27 Equity Method in seperate financial statements	None. As the amendments to IAS 27 concern an entity's separate financial statements, it does not have any impact on the group's consolidated financial statements.				
Amendment to IAS 16 and IAS 41 Agriculture: Bearer Plants	<b>None.</b> SolarWorld group is not engaged in agrigultural activities.				

### Changes in accounting methods

SolarWorld AG has applied all accounting principles endorsed by the EU and compulsory for accounting periods beginning before or on January 1, 2014, if affecting these consolidated financial statements. We refer to our comments stated above.

### 2.3 BASIS OF CONSOLIDATION AND GROUP STRUCTURE

### 2.3.1 Subsidiaries

The consolidated financial statements incorporate the financial statements of SolarWorld AG and all domestic and foreign entities (including structured entities). Subsidiaries are fully consolidated once the group has control. Control is achieved when SolarWorld AG:

- · has power over the investee,
- is exposed, or has rights, to variable return from the investment with the investee, and
- has the ability to use its power to affect the returns.

The Company reassesses whether or not it controls an investee if facts and circumstances indicate that the there are changes to one or more of the three elements of control listed above.

Consolidation of a subsidiary begins when SolarWorld AG obtains control over the subsidiary and ceases when the Company loses control over the subsidiary. Specifically, income and expenses of a subsidiary acquired or disposed of during the year are included in the consolidated statement of profit or loss and other comprehensive income from the date the Company gains control until the date the Company ceases to control the subsidiary.

When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with SolarWorld group's accounting policies.

All intragroup assets and liabilities, equity, income, expenses and cash flows relating to transactions of the Group are eliminated in full on consolidation.

The following additions apply with regard to recognition of project entities that were or are specially established for the construction, operation and marketing of solar parks: Amongst other things, SolarWorld group's operations include the development, construction and marketing of solar parks. For this purpose, special project entities are founded that are fully consolidated in the consolidated financial statements if SolarWorld group controls them in terms of IFRS 10. Deliveries and services rendered to the respective project entity by SolarWorld group within the consolidation period therefore do not result in revenue recognition but instead either result in an increase of inventories through work in progress or finished goods or of fixed assets in the case of external marketing not scheduled in the medium-term. Revenue recognition occurs at the time of deconsolidation, i.e. when SolarWorld group no longer controls the project entity. Since the construction and marketing of solar parks is part of SolarWorld group's operations, deconsolidation of project entities, from an economic point of view, equals the sale of a solar park that is therefore recognized as a revenue transaction on the income statement and shown in the cash flow from operating activities on the cash flow statement.

For capital consolidation, cost of the investment is offset with the proportional equity amount — measured at fair value — at the time of acquisition. A resulting positive difference is allocated to the assets insofar as their carrying amount differs from the fair value. Any remaining positive difference is considered goodwill. A negative difference is recognized through profit and loss.

### a) Changes in SolarWorld group's ownership interest in existing subsidiaries

Changes in SolarWorld group's ownership interest in subsidiaries that do not result in the Group losing control over the subsidiaries are accounted for as equity transactions. In the scope of an equity transaction, the additional acquisition only concerns the allocation of the owners' residual claims. Hence, recognition of assets and liabilities remain unchanged. Within equity, however, a shift in value takes place between majority owners and non-controlling owners.

When the Group loses control of a subsidiary, a gain or loss is recognized in profit or loss and is calculated as the difference between

- the aggregate of the fair value of the consideration received and the fair value of any retained interest and
- the previous carrying amount of the assets (including goodwill), and liablities of the subsidiary and any non-controlling interest.

All amounts previously recognized in other comprehensive income in relation to that subsidiary are accounted for as if the Group had directly disposed of the related assets or liabilities of the subsidiary (i.e. reclassified to profit or loss or transferred to another category of equity as specified/permitted by applicable IFRSs).

#### b) Business combinations

Business combinations are accounted for using the acquisition method. Cost of a business combination consist of the balance of the transferred consideration measured at fair value as of acquisition date and – if applicable – the non-controlling interests in the acquired entity. Acquisition-related costs are generally recognized in profit or loss as incurred.

If an entity is acquired, the classification and designation of the financial assets and assumed liabilities is assessed in compliance with the contract terms, economic framework and conditions prevailing at the time of acquisition.

Upon initial recognition, goodwill is measured at cost as the excess of the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree, and the fair value of the acquirer's previously held equity interest in the acquiree—if any—over the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed. If, after reassessment, a negative difference arises from the acquisition (badwill), the excess is recognized immediately in profit or loss as a bargain purchase gain.

If the initial accounting for a business combination is incomplete by the end of a reporting period, SolarWorld reports provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted during the measurement period, or additional assets or liabilities are recognized, to reflect new information obtained about facts and circumstances that existed at the acquisition date that, if known, would have affected the amounts recognized at that date. Measurement period cannot exceed one year from the acquisition date.

### SolarWorld Industries Thüringen GmbH

On March 12, 2014 Solar World Industries Thüringen GmbH, a wholly owned subsidiary of Solar World AG, Bonn, acquired a large part of the production lines and other assets from Bosch Solar Energy AG in Arnstadt, Thuringia.

The acquisition increases production capacities at the cell and module stages of the value chain and strengthens the group's technological basis.

The purchase price for the manufacturing facilities and other assets payable by SolarWorld Industries Thüringen GmbH amounted to € 3.00. In addition, a payment of € 120 million payable by Bosch to SolarWorld Industries Thüringen GmbH was agreed ("negative purchase price").

The purchase price was due at closing date. The negative purchase price is subject to a payment plan with a term until March 2018.

Material transactions which would have to be disclosed separately from the business combination according to IFRS 3.51 have not happened.

The determination of the fair value of the net assets at acquisition date and the resulting gain (badwill) in amount of € 136,522k is as follows:

in k€	
Intangible assets	539
Property, plant and equipment	67,773
Current assets	13,823
Inventories	3,711
Other financial assets	2,311
Assets held for sale	7,801
Total assets	82,135
Deferred tax liabilities	-59,997
Non-current pension provision	-256
Current provisions	-3,500
Other current liabilities	-1,860
Total liabilities	-65,613
Identifiable net assets at fair value	16,522
Negative purchase price	120,000
Gain resulting from a business combination (badwill)	136,522

The resulting gain is recognized and disclosed in other operating income.

For the purpose of the segment reporting SolarWorld Industries Thüringen GmbH has been attributed to the operating segment "Production Germany". In the reporting period SolarWorld Industries Thüringen GmbH has generated external revenues in an amount of  $\in$  98k and has made a profit of  $\in$  119.0 million including the above disclosed badwill. If the acquisition had taken place at the beginning of the reporting period, this would have had no effect to the above mentioned amounts, as the manufacturing facilities were only restarted at the acquisition date.

### 2.3.2 INVESTMENTS IN ASSOCIATES AND JOINT VENTURES

An associate is an entity over which the Group has significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those policies.

A joint venture is a joint agreement whereby the parties that have joint control of the arrangement have rights to the net assets of the joint arrangement. Joint Control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control.

The group's investments in associates and joint ventures are recognized in accordance with the equity method.

Investments in other companies accounted for using the equity method are recognized on the balance sheet at cost in consideration of changes that occurred after the acquisition date regarding the group's participation in the investee's equity, of the hidden reserves and burdens recognized at acquisition as well as of the unrealized proportionate intercompany results from transactions with the investee. Goodwill connected with the investment is included in the carrying amount of the investment and is subject to neither regular amortization nor separate impairment tests.

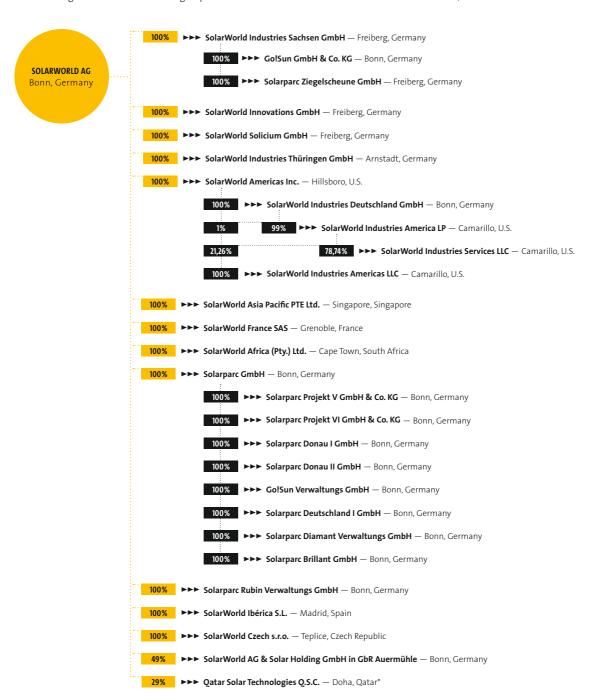
The consolidated income statement contains in the line item "result from investments measured at equity" the group's share in the profit or loss of the investee including the effects of the development of the disclosed hidden reserves and burdens. These concerns profit allocable to the investors and, thus, profit after tax and non-controlling interests in the investee's subsidiaries. The group recognizes any changes recognized directly in the investee's equity to the extent of its share. Unrealized intercompany results from transactions between the investee and the group are also eliminated through the item "result from investments measured at equity" in accordance with the latter's share in the investee.

The financial statements of the investments are prepared as per the same balance sheet date as those of the parent. When necessary, adjustments are made to the financial statements of investments to bring their accounting policies into line with SolarWorld group's accounting policies.

After application of the equity method, the group determines whether it is necessary to recognize any additional impairment loss with respect to the group's investment. As per each balance sheet date, the group determines whether there is any evidence indicating that the investment in an associate or joint venture could be impaired. If this is the case, the difference between the recoverable amount of the investment in an associate or joint venture and the carrying amount of the investment is recognized in profit or loss.

### 2.3.3 Group structure

The following table shows SolarWorld group's consolidated entities and their structure at December 31, 2014:



<sup>\*</sup> Consolidated at equity

G 26

Effective per June 23, 2014, Deutsche Solar GmbH was renamed SolarWorld Industries Sachsen GmbH.

Effective per June 24, 2014, Bonn-based corporation Solarparc was transformed into a limited liability company.

On July 22, 2014, with retroactive effect from January 1, 2014 and in accordance with §§ 2 et seqq. of the German Reorganization of Companies Act (Umwandlungsgesetz, UmwG) our subsidiaries Deutsche Cell GmbH and Solar Factory GmbH were merged into SolarWorld Industries Sachsen GmbH (formerly Deutsche Solar GmbH).

With contract under the law of obligation dated September 22, 2014, Solarparc Projekt IV GmbH & Co. KG was sold to a third party investor. The entity was deconsolidated in the reporting period, which made for revenue of  $\in$  2,962k.

With contract under the law of obligation dated September 25, 2014, Solarparc GmbH's photovoltaic operation was sold to a third party investor. Upon selling the photovoltaic operation, the investments in the following 18 companies were also sold: Solarparc Nr. 1 GmbH to Solarparc Nr. 17 GmbH and Solarparc GbR. The entities were deconsolidated in the reporting period.

On October 1, 2014, SolarWorld Americas LLC was merged with SolarWorld Industries America Inc.; SolarWorld Industries America Inc. was subsequently renamed SolarWorld Americas Inc.

By shareholders' resolution of October 29, 2014, SolarWorld Industries Sachsen GmbH transferred its limited partnership share in Solarparc Ziegelscheune GmbH & Co. KG to Solarparc Verwaltungs GmbH; Solarparc Verwaltungs GmbH was renamed Solarparc Ziegelscheune GmbH. Solarparc Ziegelscheune GmbH & Co. KG ceased to exist.

In the fourth quarter of 2014 Solarparc Projekt VI GmbH & Co. KG was founded. The entry in the commercial register took place on December 10, 2014.

In connection with the acquisition of the shares in SolarWorld AG & Solar Holding GmbH in GbR Auermühle (Auermühle), SolarWorld AG was granted the right to acquire up to 45% of the shares in the entity. The entity was thus fully consolidated per April 30, 2010.

SolarWorld Schalke GmbH remains in liquidation.

SolarWorld Industries Sachsen GmbH (formerly Deutsche Solar GmbH), SolarWorld Innovations GmbH, SolarWorld Industries Deutschland GmbH and SolarWorld Solicium GmbH utilize the disclosure and preparation facilitations provided by § 264 para. 3 HGB.

### 2.4 CURRENCY TRANSLATION

Financial statements of the consolidated companies that are presented in foreign currencies are translated into Euro (€) in accordance with the concept of functional currency as set forth by IAS 21. The functional currency of foreign companies is determined by the primary economic environment in which the company principally generates and uses means of payment. Within SolarWorld AG, functional currency basically equals the domestic currency with the exemption of SolarWorld Asia Pacific PTE Ltd. and Qatar Solar Technologies Q.S.C. whose functional currency is US\$.

For the purpose of translating the foreign companies' financial statements into the reporting currency of the group, assets and liabilities are translated per closing rate while expenses and revenue are translated by means of the average annual rate. Due to the application of the closing date method, differences resulting from the translation are transferred to a currency exchange reserve, thereby not affecting profit or loss. The amount recognized in the reserve for a foreign operation is re-recognized and shown on the income statement upon disposal of the foreign operation.

The following exchange rates were used for currency translation:

		Closing rate		Average rate	
1 € =		Dec 31, 2014	Dec 31, 2013	2014	2013
U.S.	USD	1.21	1.38	1.32	1.33
South Africa	ZAR	14.04	14.57	14.34	13.01
Czech Republic	CZK	27.74	27.43	27.55	26.03

### 2.5 SUBSTANTIAL JUDGMENTS, ESTIMATIONS AND ASSUMPTIONS OF MANAGEMENT

In the scope of preparing the consolidated financial statements in consideration of IFRS, some items require that judgments, estimations and assumptions are made which affect recognition and measurement of assets and liabilities on the balance sheet or the amount and presentation of revenue and expenses on the group's income statement as well as the statement of contingent assets and liabilities. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results in future periods may differ from these estimates

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to estimates are recognized in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

The following substantial judgments, estimates and assumptions were made when the group's financial statements in 2014 were prepared:

The consolidated financial statements are based on the assumption of a going concern.

Furthermore, the most significant assumptions and estimations concern the determination of the fair values of the net assets at the time of acquisition within the business combination, the measurement of inventories, usability of deferred tax assets, impairment tests for fixed assets, the accounting of long-term purchase agreements for silicon concluded in the past and measurement of provisions especially provisions for contingent losses, litigation risks and warranties. These assumptions and estimations are based on premises that are, in turn, based on the respective state of knowledge currently available. However, these circumstances and assumptions regarding future developments can change due to market fluctuations and the market situation as well as legal assessments to the contrary that lie outside the group's influence.

Assumptions regarding expected business development are especially based on the existing circumstances at the time of preparation of the consolidated financial statements and the future development of the global and sector-specific environment as is deemed realistic at the time.

In a business combination, all identifiable assets, liabilities and contingent liabilities acquired are recorded at the date of acquisition at their respective fair value. One of the most significant estimates relates to the determination of the fair value of these asset and liabilities. Land, buildings and equipment are usually independently appraised. If any intangible assets are identified, depending on the type of intangible asset and the complexity of determining its fair value, SolarWorld either consults with an independent external valuation expert or develops the fair value internally, using an appropriate valuation technique which is generally based on a forecast of the total expected future net cash flows. These evaluations are linked closely to the assumptions made by management regarding the future performance of the assets concerned.

The group's impairment tests are based on calculations using the discounted cash flow method. The cash flows are derived from the finance plan of the next three years whereas future expansion investments that are not yet being implemented and will increase the earning power of the tested cash-generating unit are not included. The recoverable amount greatly depends on the discount rate used in the scope of the discounted cash flow method as well as on the expected future cash inflows and the growth rate used for extrapolation. More details on the basic assumptions for determining the recoverable amount for the cash-generating unit are provided in note 8.

Especially with regard to measurement on the basis of the recoverable amount, the inventory measurement is based on assumptions regarding the expected sales prices and costs expected to be incurred until completion. As a basic principle, we assumed that raw materials and consumables as well as work in progress are further processed to modules and sold as modules.

With regard to long-term purchase agreements for Silicon concluded in the past and the respective prepayments made, assumptions are made that relate to the legal validity of the agreements and, as regards to their extent, on the measurement of such prepayments. Such assumptions are subject to considerable uncertainties and are essentially based on estimations of the company's legal consultants, on market data and our own estimations.

With respect to the legal validity of the agreements, the company assumes, based on legal opinions prepared by third parties, that purchase commitments from contracts in a total amount of some € 0.5 billion (calculated on the basis of originally agreed prices) most probably violate EU anti-trust laws and therefore are null and void. Thus, in the accounting, the company neither set up a provision for onerous contracts in terms of IAS 37 nor deducted it from prepayments made. With regard to the accounting of the respective prepayments made (carrying amount € 81.3 million), the company assumes that it is unrealizable. The prepayments were therefore completely written off already in the past.

Due to uncertainties in the scope of legal disputes as well as possible changes of strategy, the accounting and measurement of the long-term contracts is subject to periodic reestimation upon changing circumstances over time. The recognition and calculation of the impairments as at the balance sheet date is based on a scenario that the Management Board considers the most probable under the circumstances at balance sheet date.

The warranty provision is set up for specific individual risks, for the general risk of claims due to statutory warranties and performance guarantees granted with regard to sold solar modules. The latter are granted for a period of 25 and 30 years. Since SolarWorld AG has been producing and selling solar modules for significantly less than 25 years, it is hardly possible to fall back on experience regarding the calculation of the performance guarantee provision. Much rather, assumptions and estimations are required that are subject to uncertainties. Their modification due to gaining experience regarding claims due to the performance guarantee over the course of time can lead to adjustments of the provision or consequences on the expenses from warranties recognized on the income statement.

With respect to the exact specification of assumptions made in connection with the determination of further provisions, we refer to the respective disclosures in notes 2.21 and 34.

With regard to tax loss carryforwards, deferred tax claims are recognized only if their realization is likely in the medium-term (within the next five years). If a tax unit shows a history of losses, deferred tax claims from loss carryforwards of this unit are only recognized if sufficient taxable temporary differences or substantial indications for their realization exist. When determining the amount of deferred tax assets suitable for capitalization, substantial management assumptions and estimations are necessary with respect to the expected time of occurrence and the amount of the future taxable

income as well as future tax planning strategies. Due to the loss history of SolarWorld Americas Inc., no deferred tax assets for tax loss carryforwards of this entity were recognized.

Uncertainties exist with respect to the interpretation of complex tax regulations, changes in tax law and the amount and time of origination of future results subject to tax. Due to the great bandwidth of international business relations and the non-current character and complexity of existing contractual agreements, it is possible that deviations between the actual results and the assumptions made or future modifications of such assumptions might require adjustments of tax income and tax expenses already recognized. On the basis of reasonable estimations, the group sets up provisions for possible tax field audits in the countries of operations. The extent of such provisions is based on different factors, e.g. experience from past tax field audits and different interpretations of tax law regulations by the taxpaying entity and the responsible tax office. Such different interpretations can result from a number of different facts and circumstances depending on the conditions that prevail in the country of domicile of the respective group company.

To the extent to that the fair value of financial assets and liabilities recognized on the balance sheet cannot be determined by way of active market data, it is primarily determined in application of measurement procedures including the discounted cash flow method. If possible, the factors included in the model are based on observable market data. For further details, we refer to note 40.

Expenses from postemployment defined benefit plans and the present value of pension obligations are determined on the basis of actuarial computations. The actuarial measurement is carried out on the basis of assumptions regarding discount rates, mortality and future increase in pensions. Due to the complexity of measurement, the assumptions used as a basis and their long-term nature, a defined benefit obligation shows very sensitive reactions to any modifications of these assumptions. All assumptions are subject to evaluation at each balance sheet date. When determining the appropriate discount rate, management keeps to the interest rates of corporate bonds with at least sound creditworthiness. The mortality rate is based on publicly accessible mortality tables. Further details regarding the applied assumptions can be found in notes 2.20 and 34.

### 2.6 INTANGIBLE ASSETS

Purchased intangible assets are recognized at cost and — with the exception of goodwill — are subject to regular straight-line amortization, their useful lives ranging between 4 and 15 years. Intangible assets subject to indefinite useful lives do not exist. Expenditure on research incurred upon generation of intangible assets is immediately recognized as an expense. The same applies as regards development expenditure because research and development are iteratively linked and reliable severability therefore generally does not exist.

Profits or losses from derecognition of intangible assets are determined as the difference between the net disposal gain and the carrying amount of the asset and recognized through profit or loss in the period in which the asset is derecognized. Amortization of intangible assets is recognized in the amortization and depreciation item on the income statement.

All expenses for exploration and evaluation of natural resources are recorded as such and separately recognized as intangible assets. To the extent to that indications exist that point to impairment in terms of IFRS 6.20, the intangible asset is assessed for potential impairments. At balance sheet date, such indications were not at hand. After successful exploration and evaluation, the intangible asset is subject to regular amortization for the duration of the production period. Depreciation of property, plant and equipment used for exploration and evaluation purposes is part of the expenses that are recognized as intangible asset.

Goodwill – especially from capital consolidation – is subjected to an annual impairment test in accordance with IFRS 3 and IAS 36 and 38. Impairment tests are also conducted if individual indications imply the necessity. We refer to our comments in note 2.8.

### 2.7 PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment are measured at cost less regular physical depreciation. Cost comprises all individual expenses directly attributable to the manufacturing process as well as appropriate proportions of the necessary cost of materials and manufacturing overhead. In addition, cost includes depreciation caused by manufacturing and the manufacturing-related pro-rata costs for company

retirement benefit plans as well as the voluntary social benefits of the company. Administration costs are considered to the extent to which they can be attributed to manufacturing. Cost also includes — in addition to the purchase price after reduction of discounts, rebates and cash discounts—all directly attributable costs incurred to bring the asset to a location and condition necessary for it to be capable of operating in the manner intended by management.

Borrowing costs that can be directly attributed to acquisition, construction or production of a qualifying asset are capitalized as part of the cost of the respective asset if a period of at least one year is required to prepare the asset for its intended use or sale. All other borrowing costs are recognized as an expense in the period in which they are incurred. Borrowing costs are interest and other costs incurred by an enterprise in connection with the borrowing of funds. As a basic rule, the group capitalizes borrowing costs for qualifying assets. However, no qualifying assets were identified in the annual period 2014. Hence, all borrowing costs were recognized as expenses.

Ongoing maintenance and repair expenses that do not constitute material replacement investments are recognized as expense right away. Where substantial parts of property, plant and equipment need to be replaced in regular intervals, the group recognizes these as separate assets with specific useful lives or depreciation. In the event of a major inspection, the group capitalizes in the carrying amount of the item of property, plant and equipment the cost of replacing part of such an item when that cost is incurred if the recognition criteria are met. All other inspection and maintenance cost is recognized through profit or loss immediately.

To the extent to that depreciable property, plant and equipment consist of material identifiable components with different useful lives, these components are recognized separately and written down over the course of the respective useful life.

The present value of an expected disposal of an asset after use is included in the respective asset's cost if the recognition criteria for a provision are met. Detailed information on the measurement of the provision for building restoration obligations can be found in note 34.

With respect to own work capitalized we refer to note 4.

The following useful lives are used as a basis for depreciation:

Buildings including investment property	15 to 50 years
Buildings/fixtures on leasehold land	Lease agreement terms (max. 10 to 15 years)
Technical equipment and machinery	up to 10 years
Wind power and photovoltaic plants	20 years
Other equipment, factory and office equipment	3 to 5 years

Property, plant and equipment are derecognized either upon disposal or as soon as no further economic benefit is expected from further utilization or disposal of the recognized asset. The profits or losses resulting from derecognizing the asset are determined as the difference between the net sale price and the carrying amount of the asset and are recognized on the income statement through profit or loss in the period in which the asset is derecognized.

Investment grants and subsidies do not reduce the respective asset's cost but are subject to deferral on the liabilities side of the balance sheet. We refer to notes 2.19 and 33.

## 2.8 IMPAIRMENTS OF PROPERTY, PLANT AND EQUIPMENT AND INTANGIBLE ASSETS

At each balance sheet date, the carrying amounts of property, plant and equipment and intangible assets are examined with regard to indications of the occurrence of impairments (impairment test). If such indications are identifiable, the recoverable amount of the asset is estimated to determine the extent of any possible impairment expenses. To the extent to that the recoverable amount cannot be estimated for the individual asset, the determination is conducted on the level of the cash generating unit ("CGU") to which the respective asset is assigned.

Intangible assets with indefinite useful lives or those that cannot yet be used are subject to impairment testing at least once a year (December 31) and whenever so-called "triggering events" occur.

The recoverable amount is the higher one of fair value less costs to sell and the value in use.

- For determining the value in use, the estimated future cash flows are discounted with a pre-tax interest rate, which considers both the current market assessment through time value of money and risks concerning the asset to the extent to that they are not yet accounted for in the scope of the cash flow estimation. The computations are based on forecasts that are based on financial plans for the next three years as authorized by management. This planning horizon shows the assumptions for short- and medium-term market developments. Free cash flows were discounted at "weighted average costs of capital" after corporation taxes between 10.3 percent and 10.6 percent (2013: 11.4 percent to 13.9 percent) at the balance sheet date. This discount rate is based on the risk-free interest rate determined in accordance with the reporting date-related interest structure at the bond market for which a value between 1.17 percent and 2.51 percent (2013: 2.58 percent and 3.76 percent) was applied and a general market risk premium before personal taxes between 5.80 percent and 6.25 percent (2013: 5.80 percent and 6.25 percent). Data of a representative peer group, in which SolarWorld AG is not considered because of the influence of the restructuring on past data from which the beta factor is derived, were used for determining the beta factor, borrowed capital surcharge and capital structure.
- The fair value less costs to sell was calculated on the basis of current market conditions and a general commercial use by market participants. For parts of fixed assets, expert estimates on the fair value less costs to sell were at hand. Evaluating machinery, prices and price indices for commercial products (based on the original value and current replacement value) as well as the variable factors time value and utility value were included in particular. The time value factor comprises the loss in value attributed to the age of the object as well as current market trends. The utility value factor is above all determined by the condition of the machinery as well as its location and its time and degree of utilization. For marketing assumptions, several scenarios were considered.

To the extent to that the recoverable amount of an asset or a CGU falls short of its carrying amount, the carrying amount is written down to the recoverable amount. The impairment loss is immediately recognized through profit and loss.

Should the impairment loss be reversed, the carrying amount of the asset or the CGU will be increased to the reassessed recoverable amount. Attention needs to be paid to the ceiling of the addition in the amount of the original carrying amount of the asset or CGU. The reversal of an impairment loss is immediately recognized through profit and loss.

Goodwill is not subject to scheduled amortization but is assessed on the basis of the recoverable amount of the CGU it is assigned to ("impairment only approach"). Goodwill acquired in the scope of a business combination is assigned to each individual CGU that is expected to get synergies out of the combination. The impairment test is conducted at least annually at reporting date (December 31) and again if indications of an impairment of the CGU are at hand.

In the event that the carrying amount of the CGU the goodwill was assigned to exceeds the recoverable amount the assigned goodwill is written down in the amount of the determined difference. Goodwill impairments cannot be reversed once they are conducted. If the determined difference (impairment necessity) of the CGU exceeds the carrying amount of the assigned goodwill, a proportionate impairment of the carrying amounts of the assets assigned to the CGU is conducted in the amount of the remaining impairment. Goodwill is recognized neither in the current nor the prior reporting year.

With regard to the results of the impairment tests conducted during the reporting year, we refer to note 8.

## 2.9 INVESTMENT PROPERTY

Investment property is initially measured at cost, including transaction costs. The carrying amount includes the cost of replacing part of an existing investment property at the time that cost is incurred if the recognition criteria are met and excludes the costs of day-to-day servicing of an investment property. In the scope of subsequent measurement, investment property is recognized at cost less straight-line depreciation and impairment expenses. With regard to measurement bases and useful lives, we refer to note 2.7.

Investment properties are derecognized when either they have been disposed of or when the investment property is permanently withdrawn from use and no future economic benefit is expected from its disposal. The difference between the net disposal proceeds and the carrying amount of the asset is recognized in the income statement in the period of derecognition.

Transfers are made to or from investment property only when there is a change in use. For a transfer from investment property to owner-occupied property, the deemed cost for subsequent accounting is the fair value at the date of change in use. If owner-occupied property becomes an investment property, the group accounts for such property in accordance with details stated in note 2.7 until the time of the change of use.

#### 2.10 OTHER NON-CURRENT ASSETS

Prepayments made on inventories are recognized in other noncurrent assets. The prepayments were partially made in US\$. As this does not concern monetary items in terms of IAS 21.16, measurement was carried out at historic rate at the time of spending.

## 2.11 INVENTORIES

Inventories include raw materials and supplies, work in process and finished goods, merchandise and short-term prepayments for inventories. Purchased inventories are recognized at acquisition cost that, depending on the type of inventory, is determined either on the basis of average costs or in accordance with the "first-infirst-out" (FiFo) method. Inventories of the group's own making are recognized at production cost. In addition to the individual costs, cost includes adequate proportions of the necessary cost of materials and manufacturing overhead based on regular capacity utilization of the production facilities. Cost also includes depreciation caused by manufacturing which can be directly allocated to the manufacturing process and, to the extent to that they are manufacturing-related, pro-rata expenses for company retirement benefit plans and voluntary social benefits. Administration costs are taken into account to the extent to that they concern manufacturing. Borrowing costs are not taken into account, as inventories do not constitute qualifying assets from the group's point of view.

Measurement per balance sheet date occurs at the respective lower amount of cost on the one hand side and net realizable value on the other. The latter is the estimated sales proceed of the final good realizable in the normal course of business less estimated costs until completion of the good as well as estimated necessary distribution costs.

Due to the prevailing manufacturing circumstances in both, entity and industry, finished goods and merchandise are summarized in the comments on inventories in note 24.

Some of the current prepayments recognized in inventories were paid in US\$. Measurement was carried out at historic rate at payment date because the prepayments are non-monetary items in terms of IAS 21.16.

### 2.12 TRADE RECEIVABLES

Trade receivables are accounted for at their nominal value. If there is doubt concerning the recoverability of the debt, the receivables are recognized at lower realizable value. In part, allowances are made using a contra account. The decision whether an allowance is made via contra account or by directly reducing the carrying amount depends on the probability of the expected loss. Receivables stated in foreign currencies are accounted for at closing rate.

Receivables from construction contracts will be accounted for in accordance with the percentage-of-completion-method as set forth by IAS 11. We refer to our statements in note 2.23.

#### 2.13 OTHER RECEIVABLES AND ASSETS

Other receivables and other assets are accounted for at nominal value. Identifiable risks and general credit risks are taken into consideration by setting up corresponding value adjustments.

#### 2.14 OTHER FINANCIAL ASSETS

Financial assets in terms of IAS 39 are either categorized as financial assets

- · "measured at fair value through profit or loss",
- · "held-to-maturity-investments",
- · "financial assets available for sale",
- · "loans and receivables", or
- derivates that were designated as hedging instruments and are effective as such.

The group determines the classification of its financial assets upon initial recognition. Upon initial recognition, financial assets are measured at fair value plus transaction costs. Financial assets classified as "measured at fair value through profit or loss" are exempted therefrom, as they are initially recognized at fair value without taking transaction costs into account.

At reporting date, no securities categorized as "held-to-maturity investments" exist.

Subsequent measurement of financial assets depends on their categorization.

Securities are "measured at fair value through profit or loss" if they are either designated as such or "held for trading".

Securities are categorized as "held for trading" if they were acquired with the intention to sell them in the short term. This category also includes the group's derivative financial instruments that are not designated as hedging instruments in hedge accounting in terms of IAS 39.

Financial assets are designated as "at fair value through profit or loss" if they are part of a portfolio that is evaluated and managed on the basis of fair values. Acquisition and sale of securities takes place with regard to revenue-optimized liquidity management and is, for the most part, centrally managed by Solar World AG. At reporting date, financial assets of this category did not exist.

Financial assets "at fair value through profit or loss" are recognized at fair value. Each profit or loss resulting from measurement is recognized in the financial result through profit or loss. The recognized net gain or loss also includes possible dividends and interest of the financial asset.

The fair value of financial instruments traded in active markets is determined by the market price at balance sheet date without any deduction for transaction costs. The fair value of financial instruments not traded in an active market is determined in application of appropriate measurement methods. For further details on the applied measurement methods, we refer to note 40.

Financial assets categorized as "loans and receivables" are non-derivative assets with fixed or identifiable payments that are not listed in an active market. After initial recognition, such financial assets are measured at amortized cost using the effective interest method less possible impairments in value in the scope of subsequent measurement.

Financial assets categorized as "available-for-sale financial assets" are financial instruments intended to be held for an indefinite period, which may be sold as a reaction to liquidity needs or changes of the market environment. After initial recognition, "available-for-sale financial assets" are measured at fair value in the following periods. Unrealized profits or losses are recognized in the AfS-reserve. Upon derecognising such an asset, the accumulated profit or loss is transferred to be shown on the income statement.

In consideration of IFRIC 14 and IAS 19, SolarWorld AG capitalized liability insurances in the financial assets. These insurances serve as insolvency insurance with regard to early retirement obligations. Recognition is based on the insurance company's statements regarding the asset value and conducted in the amount in that the insurance value exceeds the amount of the early retirement obligations (plan asset surplus).

#### 2.15 LIQUID FUNDS

Liquid funds include cash and cash equivalents in the form of cash in hand, bank balances and current investments made with banks that can be converted into cash contributions at any time and are subject to only marginal fluctuations in value. They are categorized as "loans and receivables" and measured at amortized cost less possible impairments in accordance with the effective interest method.

For the purpose of the cash flow statement, cash and cash equivalents include cash in hand and current deposits less utilized advances on current accounts. To the extent to that means of payment are subject to restrictions on disposal of more than three months they are shown in other financial assets.

# 2.16 ASSETS AND LIABILITIES HELD FOR SALE AND DISCONTINUED OPERATIONS

Individual non-current assets, asset groups or assets of discontinued operations are recognized as "assets held for sale" if their carrying amounts are largely realized via sales transactions as opposed to via continued usage and if, additionally, they meet the criteria set forth in IFRS 5. Regular depreciation or amortization on these assets ceases. Impairments are only recognized if the fair value less costs to sell is lower than the carrying amount. Any impairment previously recognized needs to be reversed if the fair value less costs to sell is increased later on. The addition is limited to the impairments previously recognized for the respective assets.

Expenses and income from discontinued operations as well as gains and losses from their measurement at fair value less costs to sell are disclosed as the result of discontinued operations on the face of the income statement. Gains and losses from the sale of discontinued operations are also recognized in this line item.

#### 2.17 FINANCIAL LIABILITIES AND TRADE PAYABLES

Upon first-time recognition, financial liabilities are measured at fair value. The transaction costs directly attributable to the acquisition are also recognized with regard to all liabilities that are, subsequently, not measured at fair value through profit or loss.

Financial liabilities measured at fair value through profit or loss in subsequent recognition usually concern derivative financial instruments. We refer to note 2.18 below.

With respect to subsequent recognition, trade payables and other original financial liabilities, e.g. interest bearing loans, are measured at amortized cost in accordance with the effective interest method. Profits and losses are recognized through profit or loss if the liabilities are derecognized and in the scope of amortization by way of the effective interest method.

#### 2.18 DERIVATIVE FINANCIAL INSTRUMENTS AND HEDGING

SolarWorld group utilizes derivatives for hedging interest rate, currency exchange and commodity risks resulting from operating activities, financial transactions and investments. These financial instruments are measured at fair value through profit or loss and are classified as financial assets or liabilities held for trading if they are acquired for the purpose of selling it in the near term or not designated as hedging instruments in hedge accounting in terms of IAS 39. Profits or losses from financial assets or liabilities held for trading are recognized through profit or loss. The results are stated in other operating income or expenses to the extent to that the financial instrument was concluded for hedging purposes with regard to operating activities. Results are stated in other financial result to the extent to that the financial instrument concerns financing or investment activities.

Derivative financial instruments that are designated as hedging instruments and effective as such are categorized as current or non-current or split up in a current and a non-current part on the basis of an assessment of the facts and circumstances.

SolarWorld group applies hedge accounting provisions in accordance with IAS 39 ("Hedge Accounting") to hedge future cash flows.

The decisive factor for recognition of changes in fair value – recognition on the income statement through profit or loss or recognition in equity not affecting profit or loss – is whether or not the derivative is included in an effective hedging relationship in accordance with IAS 39. If hedge accounting is not applied, changes of the derivatives' fair values are immediately recognized through profit or loss. If, however, an effective hedge relationship in terms of IAS 39 exists, the hedging relationship as such is accounted for.

At inception of the hedging relationship, the relation between hedged item and hedging instrument including the risk management objectives is documented. In addition, both at inception and in the course of the hedge, documentation is carried out continuously as to whether the designated hedging instrument is highly effective with regard to compensation of cash flow changes in the hedged item.

The effective part of the change in fair value of a derivative or a non-derivative financial instrument designated as a hedging instrument in the scope of a cash flow hedge is recognized in equity. Profit or loss falling upon the ineffective part is immediately recognized through profit or loss.

Amounts recognized in equity are transferred to the income statement in that period in which the hedged item of the cash flow hedge becomes effective through profit or loss. Recognition on the income statement occurs within the same line item in which the hedged item is recognized. If, however, a hedged forecast transaction leads to the recognition of a non-financial asset or a non-financial liability, the profits and losses previously recognized in equity are derecognized and taken into consideration at initial determination of cost of the asset or liability.

Hedge accounting is discontinued if the hedging relationship is revoked, the hedging instrument expires or is sold, terminated or exercised or is no longer appropriate for hedging purposes. All profits or losses recognized in equity at this time remain in equity and are only accounted for through profit or loss once the forecast transaction is also recognized on the income statement. If the transaction is no longer expected to occur, the entire profit recognized in equity is immediately transferred to recognition on the income statement.

At initial recognition and in subsequent measurement, derivative financial instruments are recognized at fair value. The recognized fair values of traded derivative financial instruments equal the market prices. Derivative financial instruments that are not subject to trade are calculated using accepted measurement methods based on discounted-cash-flow-analyses and by taking recourse to current market parameters. We refer to note 40.

#### 2.19 ACCRUED INVESTMENT GRANTS

Investment grants accounted for are accrued in application of IAS 20 and released to income over the course of the useful lives of the respective assets. Thus, the item is allocated to the periods of useful lives of the subsidized property, plant and equipment, and gradually increases future business years' pre-tax income. This increase in income occurs alongside amortization and depreciation expenses of corresponding amounts, which are, therefore, neutralized upon balancing. In addition, tax effects will arise. Here income-increasing reversals of the accrued investment grants occur income tax exempt to the extent to which they result from tax-free investment grants.

IAS 20 also applies to income from investment tax credits. Claims for tax credits are recognized if there is reasonable assurance that the material requirements for receipt are met and they are granted. The claims are measured at present value.

#### 2.20 RETIREMENT BENEFITS

Group retirement benefits predominantly occur via defined contribution plans. The company pays contributions into a state or private pension fund on the basis of statutory or contractual obligations or on a voluntary basis and, once the contributions are paid, has no further benefit obligations. The annual contributions are recognized as personnel expenses.

One of SolarWorld AC's subsidiaries has a defined benefit plan, the insolvency protection of which is effected via the pension security association. Plan assets do not exist. Within the business combination (note 2.3.1 b)) another defined benefit plan has been assumed. In this case, there are plan assets pursuant to IAS 19. Pension provisions are measured in accordance with the projected unit credit method for defined benefit plans as required under IAS 19. The interest proportion included in the pension expenses is recognized in the item "interest and similar financial expenses".

The amount to be recognized as a liability from a defined benefit plan includes the present value of the defined benefits (using a discounted interest rate on the basis of first-class fixed-interest industrial bonds) less the yet unrecognized past service cost and the yet unrecognized actuarial losses (plus gains).

#### 2.21 OTHER PROVISIONS

Other provisions are set up to the extent to which a current (legal or constructive) obligation to third parties exists originating from an event in the past that will probably make for a future outflow of resources and a reliable estimate can be made of the amount of the obligation. Provisions are measured at the best estimate of the extent of the obligation. Provisions for obligations that will probably not make for an outflow of resources in the year following the reporting year are recognized at present value of the expected outflow of resources. To the extent to that the group expects at least a proportionate refund for a provision carried as liability (e.g. in case of an insurance agreement), the refund is recognized as a separate asset if the inflow of the refund is virtually certain. The expense from setting up the provision is recognized on the income statement less the refund. For further details, we refer to note 34.

If a provision cannot be set up because some criteria are not met while the possibility of a claim is all but remote, the respective obligations are recognized as contingent liabilities. In this context, we refer to note 42.

Provisions for expenses in connection with warranties are set up at the time the respective product is sold or the service is rendered. First-time recognition is conducted on the basis of estimations and assumptions. We refer to our statements in note 2.5. The original estimation of expenses in connection with warranties is subject to examination on a regular basis.

Provisions for restructuring measures are set up if a detailed formal restructuring plan is prepared and the respective parties were informed about such plan.

Provisions for restoration obligations are recognized for contractually agreed obligations and are measured with the future expected costs for restoration.

Provisions for contingent losses from onerous contracts are set up if the economic benefit expected from the contract ranges below the expenses inevitable for meeting the contract requirements.

#### 2.22 OTHER LIABILITIES

Accrued liabilities included in the balance sheet item "other liabilities" are recognized for services and goods received and for obligations to employees that do not yet meet the requirements for payment. With regard to these liabilities, future outflow of resources is, on the merits, certain and is merely subject to minor uncertainties as regards the amount. Measurement is conducted at best estimate of the expenditure required.

A proportion of the customer advances recognized in other liabilities is denominated in US\$. As the customer advances are no monetary items in terms of IAS 21.16, they were recognized at historic exchange rates valid at the date of collection.

## 2.23 REVENUE AND EXPENDITURE RECOGNITION

Income is recognized when it is probable that the economic benefit will flow to the group and the amount of income can be reliably determined. Income is measured at fair value of the received or to be claimed payment less granted (cash) discounts and VAT or other dues.

Revenue from the sale of goods or products is recognized at the time the significant risks and rewards are transferred if — as commonly true — the other requirements (no continued involvement, reliable estimation of the amount of revenue and probability of inflow) are also met.

Revenue from project business is recognized in accordance with the percentage of completion method (PoC) set forth by IAS 11 to the extent to that the corresponding requirements are met. For customer-specific projects, a pro-rata profit realization is recognized by reference to the stage of contract completion if the assessment of the stage of contract completion, total costs and total revenue of the respective contract can be reliably estimated in terms of IAS 11.

The state of completion is assessed in accordance with the cost-to-cost method pursuant to IAS 11.30 a). If the stated requirements are met, the overall contract revenue is recognized on a pro-rata basis in compliance with the stage of completion. Contract expenses include the costs directly attributable to the contract and a proportion of overhead. To the extent to that the result of a construction contract cannot be reliably determined, project income is recognized in the amount of the connected project costs, which makes for a zero balance ("zero-profit-method").

Advances received in connection with long-term sales contracts for silicon wafers are released through profit or loss once SolarWorld group is no longer obliged to credit against future supplies and does, de facto, not consider crediting.

Grants related to expenses are recognized on an accrual basis through profit corresponding to the occurrence of the respective expenses.

Operating expenses are recognized when goods and services are received or at the time of their occurrence respectively. Provisions for warranties are set up upon realization of the corresponding revenue.

All financial instruments measured at amortized cost as well as interest bearing financial assets classified as available-for-sale, interest income and interest payable are recognized at effective interest rate. This is the calculation interest rate at which the estimated future incoming and outgoing payments are accurately discounted to the net carrying amount of the financial asset or the financial liability over the course of the expected maturity of the financial instrument or possibly a shorter period. Interest income or expenses are recognized on the income statement as part of interest and other financial income or interest and similar financial expenses and are recognized on an accrual basis.

## **2.24 TAXES**

## a) Current taxes on income

Current tax assets and tax liabilities for the current and earlier periods are measured at the amount that equals the expected refund from or payment to the tax authorities. The calculation of the amount is based on tax rates and tax provisions effective in the country the group is operating in and generates taxable income at balance sheet date.

#### b) Deferred taxes

Deferred taxes are set up using the liability method for temporary differences between the recognition of an asset or a liability on the balance sheet and its value on the tax balance sheet at balance sheet date.

Deferred tax liabilities are recognized for all taxable temporary differences with the exemption of:

- · deferred tax liabilities from the initial recognition of goodwill
- deferred tax liabilities from taxable temporary differences that are related to investments in subsidiaries, associates and interests in joint ventures if the temporal course of the reversal of the temporary differences can be steered and it is probable that the temporary differences will reverse in the near future.

Deferred tax assets are recognized for all deductible temporary differences, not yet used tax loss carryforwards and not yet used tax credits to the extent to that it is probable that taxable income will be available against which the deductible temporary differences and the not yet used tax loss carryforwards and tax credits can be offset. An exemption are deferred tax assets from deductible temporary differences associated with investments in subsidiaries, associates and interests in joint ventures if it is probable that the temporary differences will not be reversed in the near future or if no sufficient taxable income will be available to set off against the temporary differences.

The carrying amount of the deferred tax assets is subject to inspection at each balance sheet date and reduced to the extent to that it is no longer probable that sufficient taxable income will be available against which the deferred tax asset may be offset at least in part. Deferred tax assets that are not recognized are subject to inspection at each balance sheet date and recognized to the extent to that it became probable that a future taxable income might enable the realization of the deferred tax asset

Deferred tax assets and liabilities are measured at the tax rates anticipated to be valid in the period in which the asset is realized or a liability is paid. The tax rates (and tax laws) effective at balance sheet date are used as a basis. Future tax rate changes are taken into account if, in the scope of a legislative procedure, substantial prerequisites for its future applicability are met.

Deferred taxes that concern items that are not recognized on the income statement are recognized directly in equity in correspondence with the transaction they are based on.

Deferred tax assets and deferred tax liabilities are offset if the group has a legally enforceable right to set off current tax assets against current tax liabilities and these relate to income taxes levied by the same tax authority.

#### c) VAT

Income, expenses and assets are recognized after VAT is deducted. The following cases are an exemption to this rule:

- If VAT incurred upon the acquisition of assets or the utilization of services cannot be claimed by the tax authority, the VAT is recognized as part of cost of the asset or part of expenses.
- Receivables and liabilities are recognized with the respective VAT amounts.

The VAT amount to be refunded by or paid to the tax authority is recognized on the balance sheet in the item "other receivables and assets" or in "other current liabilities".

## **COMMENTS ON THE INCOME STATEMENT**

## 3. REVENUE

Revenue and its allocation to the business segments and regions can be taken from segment reporting (note 15) in these consolidated notes. Consolidated revenue consist of the following products and services:

in k€	2014 20	
Module- and assembly kit sales	550,345	350,399
Cells/wafers	8,214	11,293
Power generation	5,870	5,064
Project proceeds	3,458	81,943
Other revenue	5,495	7,122
Total	573,382	455,821

Project proceeds basically result from the construction and sale of major solar plants.

Other revenue primarily includes income from the operational management of solar and wind power plants, income from the sale of other intermediate and input products and income from recycling activities.

## 4. OWN WORK CAPITALIZED

Own work capitalized mainly results from the implementation of a new ERP System.

## 5. OTHER OPERATING INCOME

in k€	2014	2013
Gain resulting from a business	426 522	
combination (badwill)	136,522	0
Income from other trade business	27,572	268
Reversal of advances received	18,279	9,663
Reversal of provisions and liabilities	13,096	3,930
Gains from currency translation	11,631	3,193
Income from grants for research and development	7,373	7,195
Reversal of accrued investment grants	4,813	6,522
Compensation payments	3,377	12,032
Income relating to other periods	1,977	7,376
On-charging of expenses	1,786	1,294
Rental income	1,066	1,189
Income from sale of photovoltaic operation	907	0
Miscellaneous other operating income	4,385	6,625
Total	232,784	59,287

With regard to the gain resulting from accounting business combination, please refer to note 2.3.1 b).

Other trade income primarily results from sales of commodities, supplies and merchandise that do not constitute a component of ordinary activities. These are offset by other operating expenses in the amount of € 27,291k (note 9).

Income from the reversal of received customer advances resulted from the lapse of the obligation to credit advances for wafer supplies against future supplies.  $\in$  18 279k (prior year  $\in$  7,523k) of the income result from the complete label of the obligation with regard to several customers while an amount of  $\in$  0k (prior year  $\in$  2,140k) results from shortfalls of orders for wafer supplies that were subject to fixed order volumes in the reporting year.

Exchange rate gains are offset by exchange rate losses of € 4,175k (prior year € 6,777k) which are recognized in other operating expenses (note 9).

Income relating to other periods mainly results from the reimbursement of insurance contributions ( $\in$  0.9 million). Previous year the income relating to other periods mainly resulted from a refund of an energy supplier ( $\in$  6.6 million).

With regard to the income from the sale of photovoltaic operation, please refer to note 2.3.3.

Research and development grants received are subject to a number of requirements. In accordance with our knowledge today, all of these requirements will be met. Hence, repayment obligations are not expected to arise.

Compensation payments include in particular insurance payments for damages caused by a business interruption. Previous year's compensation payments were almost entirely attributable to settlement payments for the non-compliance with long-term supply contracts.

### 6. COST OF MATERIALS

in k€	2014	2013
Cost of commodities, supplies and merchandise	396,883	233,697
Cost of purchased services	26,055	38,969
Total	422,938	272,666

## 7. PERSONNEL EXPENSES

in k€	2014	2013
Wages and salaries	115,921	93,081
Social security and pensions	22,360	19,285
Total	138,281	112,366

The increase in personnel expenses can be attributed to the takeover of about 750 employees due to the ramp-up of our production site in Arnstadt, Germany. We refer to note 2.3.1 b).

#### 8. AMORTIZATION AND DEPRECIATION

#### a) Regular amortization and depreciation

The combination and classification of regular amortization and depreciation for intangible assets, property, plant and equipment and investment property of € 41,609k can be taken from the fixed asset movement schedule. We refer to note 16.

# b) Impairment test for goodwill and property, plant and equipment and non-scheduled amortization and depreciation

Following the success of the financial restructuring, SolarWorld has returned to the growth path in the reporting period. However, the solar industry remains in a state of consolidation, even if tendencies for a reversal in market are recognizable. Hence, we assessed possible impairments of all assets on the lowest possible aggregation level.

In total, the result was an impairment of property, plant and equipment and intangible assets amounting to € 3.8 million (prior year € 1.9 million). As in the previous year, no impairment losses were offset by any non-scheduled reversals of accrued investment grants.

As in the previous year, no reversals of impairment losses on property, plant and equipment were recorded in the reporting period.

Impairment losses are shown under amortization and depreciation in the consolidated income statement.

#### aa) Basic assumptions for the calculation of the recoverable amount

#### Value in use

Aside from market and industrial trends, general expectations regarding macroeconomic developments and in-house experience, the detailed budgets of the producing cash-generating units (CGUs) for the first three years are based on the following substantial assumptions:

- · Continuation of the trend in growth of sales
- On short-term predominantly stable, in medium term differentiated by markets slightly declining sales prices
- · Further increase in the efficiency levels of solar cells
- · Further reduction of material costs ratio
- · Increased productivity and production capacity utilization

In consideration of the ongoing continuous growth of revenue as well as, although the market situation is currently still characterized by overcapacities, an improvement of said market situation, an earnings level extrapolated with a growth rate of 1 percent on the basis of the last detailed planning year is considered in the free cash flows in the period of perpetuity.

Upon calculating the efficiency of the tested CGUs, the assumptions used as a basis are subject to estimation uncertainties especially with respect to:

- · Gross profit margins,
- Development of prices for commodities and materials,
- · Output quantity in the observation period and
- Discount interest rate (including the growth rate used as basis for the extrapolation).

**GROSS PROFIT MARGINS.** Gross profit margins result from the scheduled transfer and sales prices and the planned cost development. For the development of step costs, we assumed an output quantity that does not include expansion investments. In addition, we expect increases in productivity and mainly decreases in cost of materials (in part cyclical increase in commodity prices). Over the course of the next two years, SolarWorld AG expects the market prices for solar modules to stabilize or fall slightly and a cyclical development of sustainable improvements in the level of earnings.

**DEVELOPMENT OF PRICES FOR COMMODITIES AND MATERIALS.** The estimations include the published price indices for important commodities like silicon and silver. Actual past developments of commodity and material prices are used as an indicator for future price developments and —to the necessary extent—amended by management's estimations.

**ASSUMPTIONS REGARDING OUTPUT QUANTITY.** For the determination of the value in use in the scope of the impairment tests, SolarWorld AG assumes an almost full use of existing production capacities in 2015 and full utilization in the annual periods 2016 and 2017. An increase is expected with respect to the output quantity in watt-peak due to technological progress (increasing efficiency) and efficiency increase programs.

**DISCOUNT RATES.** The discount rates reflect current market assumptions regarding the specific risks attributable to SolarWorld AG. The discount rate was derived on the basis of the customary average weighted capital costs (WACC).

**ESTIMATIONS OF THE SUSTAINED GROWTH RATE.** The growth rate used as a uniform basis in the phase of sustained growth amounts to 1.0 percent for all CGUs.

#### Fair value less costs to sell

Calculations of the fair value less costs to sell for parts of machinery and equipment as at the qualifying date of the financial statements are in principle based on the comparative value method and thus on market prices, comparative transactions or comparative multipliers. When no comparative values were available, the asset value method was applied. Value assessment derives from replacement values less depreciation and reductions because of economic or technical excess of age. The earnings value method was not used for the value assessment of machinery, because a reliable forecast of future earnings is not possible due to the particularities in the solar industry, above all the discontinuation of incentives and aggressive competition by state-subsidized providers from China.

## bb) Results of impairment tests

With regard to the CGU "Wafer U.S." that produces monocrystalline wafers at the Hillsboro (Oregon, U.S.) site and that is part of the "Production U.S." segment, the recognition of an impairment loss of  $\in$  0.7 million (prior year  $\in$  0.0 million) became necessary. Net realizable values assessed by an expert assessment were at hand for the substantial assets. The net realizable values of the remaining assets were derived from these amounts.

Impairment charges of € 3,138k (prior year € 1,893k) were recognized for individual assets due to a revaluation of its future usability.

## 9. OTHER OPERATING EXPENSES

in k€	2014	2013
Impairment losses on prepayments and repayment claims	30,321	76,021
Expenses incurred in connection with other trade business	27,291	520
Outside staff expenses	15,865	8,494
Selling expenses	14,642	11,622
Maintenance expenses	14,624	11,750
Legal fees, consultancy and audit expenses	12,727	15,782
Marketing expenses	8,014	9,658
Travel expenses	4,231	3,973
Expenses from the addition to other provisions	4,189	2,647
Losses from currency translation	4,175	6,777
Data processing expenses	3,942	2,549
Expenses for insurances and fees	3,665	3,645
Rent and lease expenses	2,873	2,850
Expenses relating to other periods	2,795	534
Research and development expenses (third party)	2,525	4,062
Expenses from sewage and waste disposal	2,265	1,180
Other taxes	2,173	1,907
Expenses from additions to warranty provision	1,923	914
Losses from disposal of non-current assets held for sale	1,514	0
Expenses for phone, stamps and internet	1,510	1,370
Miscellaneous other operating expenses	13,634	19,225
Total	174,898	185,480

The impairment loss or loss of prepayments exclusively results from the remeasurement or renegotiation of long-term silicon purchase agreements concluded in the past and prepayments made in this respect. We refer to our comments in note 2.5.

As in the previous year, legal fees, consultancy and audit expenses are characterized by the financial restructuring completed in the reporting period. In addition, expenses incurred for compensation and restructuring fees for the creditors are, as in the previous year, recognized in other financial expenses. We refer to our comments in note 11. The anti-dumping complaint of SolarWorld in the U.S. has another significant impact on legal fees, consultancy and audit expenses in the reporting period.

Rent and lease expenses include minimum lease payments from operating lease agreements in an amount of € 1,919k (prior year € 1,811k).

Expenses relating to other periods primarily concern the adjustment of accrued investment subsidies that were subject to adjusted notices in the reporting period.

Exchange rate losses are offset by exchange rate gains of € 11,631k (prior year € 3,193k) which are recognized in other operating income (note 5).

## 10. RESEARCH AND DEVELOPMENT EXPENSES

Research and development costs of SolarWorld group were accounted for a total of € 28,995k (prior year € 26,491k) in the reporting period.

### 11. FINANCIAL RESULT

#### a) Result from investments measured at equity

in k€	2014	2013
Income from investments measured at equity	20	0
Expenses from investments measured at equity	-9,598	-5,309
Total	-9,578	-5,309

The income from investments measured at equity results from the liquidation gain of SolarCycle GmbH that has been liquidated already last year.

In the reporting year, as in the previous year, expenses from investments measured at equity exclusively concern Qatar Solar Technologies Q.S.C.

#### b) Interest and similar income

in k€	2014	2013
Interest income	103	154
Other financial income	393	219
Total	496	373

Income from interest includes interest from interest-bearing securities, fixed term deposits and other bank balances categorized as "loans and receivables" or "financial assets available for sale".

#### c) Interest and similar expenses

in k€	2014	2013
Interest expenses	30,532	60,680
Other financial expenses	7,821	9,607
Total	38,353	70,286

Interest expenses exclusively consist of interest payable for financial liabilities categorized as "measured at amortized cost". They result from old financial liabilities that existed prior to the completion of the financial restructuring process, credit facilities and bonds newly

issued within the financial restructuring and from interest-bearing liabilities of SolarWorld group towards its employees in the scope of an internal plan with regard to variable compensation claims of employees.

Other financial expenses include expenses in connection with the restructuring of financial liabilities from compensation and restructuring fees for creditors in an amount of  $\in$  6,347k (prior year  $\in$  7,860k).

As in the prior year, borrowing costs eligible for capitalization leading to a reduction of interest expenses do not exist.

#### d) Other financial result

in k€	2014	2013
Net gains and losses from		
financial assets and financial liabilities designated as measured at fair value	-988	-539
financial assets held for trading	-103	93
financial liabilities measured at amortized costs	555,726	0
Gains/losses from currency translation	3,074	-1,072
Total	557,709	-1,518

As in the prior year, the net result of the category "designated at fair value through profit or loss" is not influenced by changes of the credit risk.

The financial restructuring of SolarWorld AG was completed on February 24, 2014. As a result, the financial liabilities of SolarWorld AG were reduced from around  $\in$  1 billion by  $\in$  570 million to  $\in$  427 million and the financial restructuring which began in January 2013 was completed. The resulting restructuring profit of  $\in$  555.7 million is recognized and disclosed in other financial result. We refer to our comments in note 32.

Derivatives that are part of a hedging relationship are not taken into account when it comes to the presentation of net gains and losses. Derivatives that are not accounted for as hedging instruments are included in the measurement category "financial assets held for trading".

## 12. INCOME TAXES

The following chart shows the composition of recognized tax expenses and income:

in k€	2014	2013
Actual domestic tax expenses	2,642	2,091
Actual foreign tax expenses	431	1,292
Total actual tax expenses	3,073	3,383
Deferred domestic tax expenses/income	105,393	-40,471
Deferred foreign tax expenses/income	19	-8
Total deferred tax expenses/income	105,412	-40,480
Total recognized tax result	108,485	-37,097

Taxes paid or owed on income in the individual countries as well as deferred taxes are recognized as taxes on income.

Both in the reporting period and in prior years, tax losses were incurred by the U.S. entities. IAS 12 sets high standards when it comes to recognizing deferred taxes on loss carryforwards if losses are recent. These requirements were not met at reporting date.

Thus, as in the prior year, no deferred tax assets were set up with regard to loss carryforwards of U.S. entities in the 2014 period. For the U.S. entities this would have been an amount of potentially  $\in$  21,007k (prior year potentially  $\in$  43,088k).

With regard to "Federal tax", the tax loss carryforwards of the U.S. entities amount to an equivalent of some € 574 million. They can be offset with tax gains until at least 2024 and will then gradually be forfeited in the years 2025 to 2034. These loss carryforwards concern some € 178 million in deferred tax assets. With regard to "State tax", the tax loss carryforwards amount to some € 550 million and concern the Federal states of California (€ 229 million), Oregon (€ 299 million) and other states (€ 21.7 million). In California, they can be offset with tax gains until at least 2018. An amount of roughly € 35 million will then gradually be forfeited in the years 2019 to 2021. For the rest (€ 194 million), they will be forfeited in 2034. In Oregon, the loss carryforwards will gradually be forfeited starting in 2022 while in the other states, the loss carryforwards of € 21.7 will be forfeited starting in 2025. Overall, deferred tax assets of some € 46 million are attributable to these loss carryforwards.

The following chart shows non-netted and netted deferred tax assets and liabilities with regard to accounting differences in the different balance sheet items and tax loss carryforwards:

	Deferred to	Deferred tax assets		Deferred tax liabilities	
in k€	Dec 31, 2014	Dec 31, 2013	Dec 31, 2014	Dec 31, 2013	
Intangible assets/property, plant and equipment	122,295	133,310	27,151	7,268	
Other non-current assets	0	4,863	10,284	2,979	
Current assets	7,577	38,423	1,973	375	
Assets held for sale	0	241	689	0	
Accrued investment grants	997	1,197	696	899	
Other non-current liabilities	3,636	2,704	29,253	3,302	
Current liabilities	10,270	5,680	4,366	836	
Tax loss carryforwards	177	86,982	0	0	
Allowances on deferred tax assets	-123,381	-138,936	0	0	
Total	21,571	134,464	74,412	15,659	
Offsetting	-20,004	-13,086	-20,004	-13,086	
Recognized deferred taxes	1,567	121,378	54,408	2,573	

At reporting date, as in the previous year no deferred tax assets and no deferred tax liabilities were recognized in equity due to the lack of hedging relationships.

As in the prior year, no deferred tax liabilities for temporary differences in connection with investments in subsidiaries or associates in accordance with IAS 12.39 were recognized per Dec. 31, 2014. The corresponding temporary differences make for a total of  $\in$  10,627k (prior year  $\in$  3,612k).

The substantial differences between nominal and effective tax rates in the course of the reporting year and the prior year are illustrated below:

in k€	2014	2013
Result before taxes	572,649	-265,403
Expected income tax rate (incl. trade tax)	30.0%	30.0%
Expected result from income tax	171,795	-79,621
Deviating domestic and foreign tax burden	-2,043	-4,425
Actual taxes relating to other periods	1,552	1,393
Taxes from non-deductible expenses	1,374	2,168
Tax reductions due to tax-exempt income	-18,893	-1,467
Effect from gain resulting from a business combination (badwill)	-41,680	0
Utilization of deferred tax assets impaired in previous years	-10,740	0
Allowances on deferred tax assets	3,670	24,563
Subsequent taxation as per § 2a EStG	0	19,268
Other deviations of tax expenses	3,450	1,024
Recognized income tax result	108,485	-37,097
Effective income tax rate	18.9%	14.0%

## 13. EARNINGS PER SHARE

Earnings per share are calculated as ratio of the consolidated net result and the weighted average of the number of shares in circulation during the business year. As in the prior year, the key figure "diluted earnings per share" was not applicable as option rights or conversion privileges are not outstanding. The consolidated result for the year results exclusively from continued operations. The weighted average of the shares in circulation used as a basis for the determination of earnings per share was recalculated per reporting date and now amounts to 12,794,495. The simplified capital reduction in the first quarter 2014 resulted in a reduced number of shares in the ratio of 150:1; previous years' figures of the weighted average number of shares outstanding and of earnings per share have been adjusted in accordance with IAS 33.64 accordingly. Also in the first quarter 2014 a capital increase by contribution in kind increased the share capital of SolarWorld AG from € 744,800.00 by € 14,151,200.00 to € 14,896,000.00.

Furthermore, in May 2014 SolarWorld AG sold 6,164 treasury shares in total for an amount of € 177k. Thus, no treasury shares were held by the company at balance sheet date (prior year 924,607 shares; after simplified capital reduction 6,164 shares). The effects from this disposal on the individual items in equity are shown in the consolidated statement of changes in equity.

#### 14. STATEMENT OF COMPREHENSIVE INCOME

SolarWorld group decided to present all items of income and expense recognized in a period in two statements, a separate income statement and a statement of comprehensive income. The statement of comprehensive income directly follows the income statement.

Since the amounts that were reclassified from equity to result of the period or allocated to cost of non-financial assets and the profits and losses not shown through profit or loss including any tax effects are presented in the statement of comprehensive income, no further disclosures are required at this point.

## 15. SEGMENT REPORTING

#### a) Segment disclosures

The presentation of segment reporting follows the "full management approach". As in the prior year, the following reportable segments were identified:

- · Production Germany,
- · Production U.S.,
- · Trade.

This is due to SolarWorld AG's prevailing internal organization, reporting and steering structure that focuses on the production and distribution of solar systems and solar modules. The greater objective of the group is to increase the existing synergy and efficiency potentials of the entire value added chain and thus achieve strategic competitive advantages for the marketing of solar systems.

For the purpose of the segment reporting the operating segments "Production Freiberg" and "Production Arnstadt" have been aggre-

gated to form the aforementioned reportable operating segment "Production Germany". Please also refer to our comments in note 2.3.1 b).

Each of the two production segments combines regionally related and fully integrated manufacturing activities in Germany and the U.S. and each include the manufacturing areas of the entire value chain.

The operating segment "Trade" comprises the worldwide distribution of solar systems and solar modules and the operations of Solarparc GmbH.

The category "all other segments" includes various business activities of the group that did not materially affect the group's financial position and financial performance in 2014.

As in the prior year, the accounting principles applicable for the consolidated entity also apply for the individual segments.

#### INFORMATION ON OPERATING SEGMENTS FOR THE REPORTING PERIOD 2014

in m€	Production Germany	Production U.S.	Trade	All other segments	Reconciliation	Consolidated
Revenue						
External revenue	13	0	560	0	0	573
Inter-segment revenue	330	175	4	14	-523	0
Total revenue	343	175	564	14	-523	573
EBITDA	121	-9	-13	11	-2	108
Scheduled depreciation	-25	-9	-2	-6	0	-42
Impairment charges	0	-4	0	0	0	-4
Operating result (EBIT)	96	-22	-15	5	-2	62
Financial result						511
Result before taxes on income						573
Taxes on income						-109
Result from continued operations						464
Consolidated net result						464
Gain resulting from a business combination (badwill)	137	0	0	0		137
Other material non-cash income	22	0	0	1		23
Material non-cash expenses	-36	-1	-2	0		-39

### INFORMATION ON OPERATING SEGMENTS FOR THE REPORTING PERIOD 2013

in m€	Production Germany	Production U.S.	Trade	All other segments	Reconciliation	Consolidated
Revenue						
External revenue	18	2	436	0	0	456
Inter-segment revenue	193	123	0	14	-330	0
Total revenue	211	125	436	14	-330	456
EBITDA	-75	-29	-57	6	8	-147
scheduled depreciation	-22	-9	-3	-6	0	-40
Impairment charges	0	-2	0	0	0	-2
Operating result (EBIT)	-97	-40	-60	0	8	-189
Financial result						-77
Result before taxes on income						-266
Taxes on income				_		38
Result from continued operations						-228
Consolidated net result						-228
Material non-cash income	15	0	0	1		16
Material non-cash expenses	-89	-9	-1	-1		-100

With regard to inter-segment revenue, the reconciliation column includes eliminations from expense and income consolidation.

Reconciliation of the balance of the segment results to the consolidated result is mainly attributable to intra-group profit elimination and other immaterial consolidation entries affecting profit or loss.

Revenue of the category "all other segments" in an amount of  $\in$  14 million (prior year  $\in$  14 million) primarily includes revenue from intra-group research and development services.

The other material non-cash income includes reversals of received advances and reversals of accrued investment grants. The material

non-cash expenses primarily comprise value adjustments on inventories, receivables and prepayments made.

## b) Disclosures on group level

With respect to the breakdown of revenue in accordance with products, we refer to the information provided in note 3.

No external customer accounts for more than 10 percent of Solar-World group's revenue at once.

Allocation of revenue to individual countries or regions is carried out on the basis of invoicing. Revenue is considered generated in the country in which the addressee of the invoice is domiciled.

in m€		Revenue	Intangible assets, property, plant and equipment and investment property	
	2014	2013	Dec 31, 2014	Dec 31, 2013
Germany	97	134	301	251
Rest of Europe	157	119	0	0
Asia	71	26	0	0
U.S.	225	155	72	80
Others	23	22	0	0
Total	573	456	373	330

## **COMMENTS ON THE CONSOLIDATED BALANCE SHEET**

## 16. DEVELOPMENT OF INTANGIBLE ASSETS AND PROPERTY, PLANT AND EQUIPMENT AND INVESTMENT PROPERTY

Composition and development of intangible assets, property, plant and equipment as well of investment property can be taken from the following chart:

in k€				Cos	;t			
	As at Jan 1, 2014	Additions from business combination	Reclassifi- cations	Addition	Reclassifications to assets held for sale	Disposal	Currency difference	As at Dec 31, 2014
I. Intangible assets								
Concessions, industrial property and similar rights and assets, and licenses in such rights and assets	32,177	539	23	1,711	0	2,644	814	32,620
2. Goodwill	39,524	0	0	0	0	0	0	39,524
3. Exploration and evaluation	1,560	0	0	302	0	0	0	1,862
4. Prepayments	902	0	-23	4,955	0	0	0	5,834
	74,163	539	0	6,968	0	2,644	814	79,840
II. Property, plant and equipment								
1. Land and buildings	365,688	58,844	0	346	9,296	5,721	15,352	425,214
2. Technical equipment and machinery	962,558	8,051	1,825	6,729	0	23,153	44,057	1,000,068
3. Other equipment, factory and office equipment	38,290	878	39	1,102	0	5,929	707	35,086
4. Construction in progress and prepayments	9,081	0	-1,864	5,564	0	2,687	554	10,648
	1,375,617	67,773	0	13,741	9,296	37,490	60,670	1,471,016
III. Investment property	16,245	0	0	0	0	0	0	16,245
	1,466,025	68,312	0	20,709	9,296	40,133	61,485	1,567,101
	1,400,023			20,703		40,133	02, 105	2,507,202
inte	1,400,023			· ·		40,233	02,100	2,501,202
in k€				Cos	.t	· · ·		
in k€	As at Jan 1, 2013	-	Reclassifi- cations	Cos		Disposal	Currency	As at Dec 31, 2013
in k€  I. Intangible assets	As at	-	Reclassifi-	Cos	Reclassifications to assets held	· · ·	Currency	As at
I. Intangible assets     1. Concessions, industrial property and similar rights and assets, and licenses	As at Jan 1, 2013		Reclassifi- cations	Cos	Reclassifications to assets held for sale	Disposal	Currency difference	As at Dec 31, 2013
I. Intangible assets     1. Concessions, industrial property and similar rights and assets, and licenses in such rights and assets	As at Jan 1, 2013	-	Reclassifi- cations	Cos Addition	Reclassifications to assets held for sale	Disposal 532	Currency difference	As at Dec 31, 2013
Intangible assets     Concessions, industrial property and similar rights and assets, and licenses in such rights and assets     Coodwill	As at Jan 1, 2013  31,365 39,524	-	Reclassifications	Cos Addition	Reclassifications to assets held for sale	Disposal  532 0	Currency difference	As at Dec 31, 2013
I. Intangible assets     1. Concessions, industrial property and similar rights and assets, and licenses in such rights and assets     2. Goodwill     3. Exploration and evaluation	As at Jan 1, 2013  31,365 39,524 892	0,721	Reclassifications  966 0	710 0 668	Reclassifications to assets held for sale	Disposal	Currency difference	As at Dec 31, 2013  32,177  39,524  1,560
Intangible assets     Concessions, industrial property and similar rights and assets, and licenses in such rights and assets     Coodwill	As at Jan 1, 2013  31,365  39,524  892  258	-	966 0 0	710 0 668 785	Reclassifications to assets held for sale	532 0 0	-332 0 0	As at Dec 31, 2013  32,177  39,524  1,560  902
I. Intangible assets  1. Concessions, industrial property and similar rights and assets, and licenses in such rights and assets  2. Goodwill  3. Exploration and evaluation  4. Prepayments	As at Jan 1, 2013  31,365 39,524 892	-	Reclassifications  966 0	710 0 668	Reclassifications to assets held for sale	Disposal	Currency difference	As at Dec 31, 2013  32,177  39,524  1,560
I. Intangible assets  1. Concessions, industrial property and similar rights and assets, and licenses in such rights and assets  2. Goodwill  3. Exploration and evaluation  4. Prepayments  II. Property, plant and equipment	As at Jan 1, 2013  31,365  39,524  892  258  72,039	-	966 0 0 -119	710 0 668 785 2,163	Reclassifications to assets held for sale  0  0  0  0  0	532 0 0 21	-332 0 0 -2 -334	As at Dec 31, 2013  32,177  39,524  1,560  902  74,163
I. Intangible assets  1. Concessions, industrial property and similar rights and assets, and licenses in such rights and assets  2. Goodwill  3. Exploration and evaluation  4. Prepayments  II. Property, plant and equipment  1. Land and buildings	As at Jan 1, 2013  31,365  39,524  892  258  72,039	-	966 0 0 -119 847	710 0 668 785 2,163	Reclassifications to assets held for sale  0 0 0 0 0	532 0 0 21 553	Currency difference  -332 0 0 -2 -334 -5,466	As at Dec 31, 2013  32,177  39,524  1,560  902  74,163
I. Intangible assets  1. Concessions, industrial property and similar rights and assets, and licenses in such rights and assets  2. Goodwill  3. Exploration and evaluation  4. Prepayments  II. Property, plant and equipment  1. Land and buildings  2. Technical equipment and machinery	As at Jan 1, 2013  31,365  39,524  892  258  72,039		966 0 0 -119	710 0 668 785 2,163	Reclassifications to assets held for sale  0  0  0  0  0	532 0 0 21	-332 0 0 -2 -334	As at Dec 31, 2013  32,177  39,524  1,560  902  74,163
I. Intangible assets  1. Concessions, industrial property and similar rights and assets, and licenses in such rights and assets  2. Goodwill  3. Exploration and evaluation  4. Prepayments  II. Property, plant and equipment  1. Land and buildings	As at Jan 1, 2013  31,365  39,524  892  258  72,039		966 0 0 -119 847	710 0 668 785 2,163	Reclassifications to assets held for sale  0 0 0 0 0	532 0 0 21 553	Currency difference  -332 0 0 -2 -334 -5,466	As at Dec 31, 2013  32,177  39,524  1,560  902  74,163
I. Intangible assets  1. Concessions, industrial property and similar rights and assets, and licenses in such rights and assets  2. Goodwill  3. Exploration and evaluation  4. Prepayments  II. Property, plant and equipment  1. Land and buildings  2. Technical equipment and machinery  3. Other equipment, factory	As at Jan 1, 2013  31,365  39,524  892  258  72,039  367,565  982,128		966 0 0 -119 847 2,652 7,296	710 0 668 785 2,163	Reclassifications to assets held for sale  0 0 0 0 0 0 0 0	532 0 0 21 553 0 28,171	-332 0 0 -2 -334 -5,466 -14,796	As at Dec 31, 2013  32,177  39,524  1,560  902  74,163  365,688  962,558
I. Intangible assets  1. Concessions, industrial property and similar rights and assets, and licenses in such rights and assets  2. Goodwill  3. Exploration and evaluation  4. Prepayments  II. Property, plant and equipment  1. Land and buildings  2. Technical equipment and machinery  3. Other equipment, factory and office equipment	As at Jan 1, 2013  31,365 39,524 892 258 72,039  367,565 982,128 39,479		966 0 0 -119 847 2,652 7,296	710 0 668 785 2,163 938 16,102	Control of the contro	532 0 0 21 553 0 28,171	Currency difference  -332 0 0 -2 -334 -5,466 -14,796	As at Dec 31, 2013  32,177  39,524  1,560  902  74,163  365,688  962,558  38,290
I. Intangible assets  1. Concessions, industrial property and similar rights and assets, and licenses in such rights and assets  2. Goodwill  3. Exploration and evaluation  4. Prepayments  II. Property, plant and equipment  1. Land and buildings  2. Technical equipment and machinery  3. Other equipment, factory and office equipment	As at Jan 1, 2013  31,365 39,524 892 258 72,039  367,565 982,128 39,479 17,074		966 0 0 -119 847 2,652 7,296 60 -9,967	710 0 668 785 2,163 938 16,102 529 2,355	Reclassifications to assets held for sale  0 0 0 0 0 0 0 0 0 0 0	532 0 0 21 553 0 28,171 1,446	Currency difference  -332 0 0 -2 -334  -5,466 -14,796  -332 -212	As at Dec 31, 2013  32,177  39,524  1,560  902  74,163  365,688  962,558  38,290  9,081

Regarding the additions from a business combination please refer to note 2.3.1 b).

			Amortization a	nd depreciation				Carrying a	mounts
As at Jan 1, 2014	Reclassifi- cations	Scheduled additions	Impairment charge	Reclassifications to assets held for sale	Disposal	Currency difference	As at Dec 31, 2014	As at Dec 31, 2014	As a Dec 31, 201
26,214	0	1,921	93	0	2,541	725	26,411	6,209	5,963
39,524	0	0	0	0	0	0	39,524	0	(
0	0	0	0	0	0	0	0	1,862	1,560
0	0	0	105	0	0	0	105	5,729	902
65,738	0	1,921	198	0	2,541	725	66,040	13,800	8,42!
254,792	0	5,687	2,904	2,904	5,843	11,780	266,417	158,797	110,896
776,989	300	31,976	0	0	19,634	38,577	828,208	171,860	185,569
30,771	0	1,714	693	0	5,871	617	27,924	7,162	7,519
6,199	-300	0	36	0	2,645	443	3,732	6,916	2,882
1,068,751	0	39,377	3,633	2,904	33,993	51,417	1,126,281	344,735	306,866
1,139	0	311	0	0	0	0	1,450	14,795	15,10
									220.20
1,135,628	0	41,609	3,831	2,904	36,535	52,141	1,193,771	373,330	330,397
	0	41,609	· ·	nd depreciation	36,535	52,141	1,193,771	Carrying a	330,397
	0 Reclassifica- tions	Scheduled additions	· ·		Disposal	Currency difference	1,193,771  As at Dec 31, 2013		mounts As a
1,135,628 As at	Reclassifica-	Scheduled	Amortization a	nd depreciation  Reclassifications to assets held		Currency	As at	Carrying a As at	mounts As a Dec 31, 2012
1,135,628 As at Jan 1,2013	Reclassifica- tions	Scheduled additions	Amortization a Impairment charge	nd depreciation  Reclassifications to assets held for sale	Disposal	Currency difference	As at Dec 31, 2013	Carrying a As at Dec 31, 2013	Mounts As a Dec 31, 2012
1,135,628  As at Jan 1,2013  24,361 39,524 0	Reclassifications  662	Scheduled additions  1,775  0	Amortization a Impairment charge	nd depreciation  Reclassifications to assets held for sale  0 0 0	295 0	Currency difference	As at Dec 31, 2013	Carrying a  As at  Dec 31, 2013	Mounts As a Dec 31, 201:
1,135,628  As at Jan 1,2013  24,361 39,524	Reclassifications  662	Scheduled additions	Amortization a Impairment charge	nd depreciation  Reclassifications to assets held for sale	Disposal  295	Currency difference	As at Dec 31, 2013  26,214  39,524	Carrying a  As at  Dec 31, 2013  5,963	7,00-
As at Jan 1,2013  24,361 39,524 0	Reclassifications  662 0	Scheduled additions  1,775  0	Amortization a Impairment charge	nd depreciation  Reclassifications to assets held for sale  0 0 0	295 0	Currency difference -289 0	As at Dec 31, 2013  26,214  39,524  0	Carrying a As at Dec 31, 2013  5,963  0 1,560	7,00-
1,135,628  As at Jan 1,2013  24,361 39,524 0 0	Reclassifications  662  0 0 0	Scheduled additions  1,775  0  0	Amortization a Impairment charge	nd depreciation  Reclassifications to assets held for sale  0 0 0	295 0 0 295	-289 0	As at Dec 31, 2013  26,214  39,524  0	Carrying a As at Dec 31, 2013  5,963 0 1,560 902	7,004
1,135,628  As at Jan 1,2013  24,361 39,524 0 0 63,885	662 0 0 0 662	1,775 0 0 1,775	Amortization a Impairment charge	nd depreciation  Reclassifications to assets held for sale  0 0 0 0 0 0	295 0 0 0 295	-289 0 0 -289	As at Dec 31, 2013  26,214  39,524  0  0  65,738	Carrying a As at Dec 31, 2013  5,963  0 1,560 902 8,425	7,004 (89: 25: 8,154
As at Jan 1,2013  24,361 39,524 0 0 63,885	Reclassifications  662  0  0  0  662	1,775 0 0 1,775	Amortization a Impairment charge	nd depreciation  Reclassifications to assets held for sale  0 0 0 0 0 0	295 0 0 0 295	-289 0 0 -289	As at Dec 31, 2013  26,214  39,524  0  0  65,738	Carrying a As at Dec 31, 2013  5,963 0 1,560 902 8,425	7,004  7,004  892  8,154  114,304  201,062
1,135,628  As at Jan 1,2013  24,361 39,524 0 0 63,885  253,261 781,065	662 0 0 0 662 533 2,029	1,775 0 0 1,775 4,982 32,232	Amortization a Impairment charge  0 0 0 0 0 1,893	nd depreciation  Reclassifications to assets held for sale  0 0 0 0 0 0 0 0	295 0 0 295 0 27,475	-289 0 0 0 -289 -3,984 -12,755	26,214 39,524 0 0 65,738 254,792 776,989	Carrying a  As at Dec 31, 2013  5,963  0  1,560  902  8,425  110,896  185,569	7,004 (0 892 258 8,154 201,062
As at Jan 1,2013  24,361 39,524 0 0 63,885  253,261 781,065	Reclassifications  662 0 0 0 662 533 2,029	1,775 0 0 1,775 4,982 32,232	Amortization a Impairment charge  0 0 0 0 0 1,893	nd depreciation  Reclassifications to assets held for sale  0 0 0 0 0 0 0 0 0	295 0 0 0 295 0 27,475	-289 0 0 0 -289 -3,984 -12,755	As at Dec 31, 2013  26,214  39,524  0  65,738  254,792  776,989  30,771	Carrying a As at Dec 31, 2013  5,963 0 1,560 902 8,425  110,896 185,569 7,519	7,004 (892 258 8,154 201,062 9,644 5,452
As at Jan 1,2013  24,361 39,524 0 0 63,885  253,261 781,065 29,838 11,621	Reclassifications  662 0 0 0 662 533 2,029 0 -3,176	1,775 0 0 1,775 4,982 32,232 2,539 -1,933	0 0 0 0 1,893 0 0	nd depreciation  Reclassifications to assets held for sale  0 0 0 0 0 0 0 0 0 0 0	295 0 0 295 0 27,475 1,328	-289 0 0 -289 -3,984 -12,755 -278 -165	As at Dec 31, 2013  26,214  39,524  0  0  65,738  254,792  776,989  30,771  6,199	Carrying a  As at Dec 31, 2013  5,963  0 1,560  902 8,425  110,896 185,569  7,519 2,882	·

### 17. INTANGIBLE ASSETS

"Exploration and evaluation" of  $\in$  1,862k (prior year  $\in$  1,560k) included in intangible assets relate to the exploration of the Eastern Ore Mountains in the search of lithium reserves. These expenses were capitalized in accordance with IFRS 6. No other self-generated intangible assets were capitalized.

## 18. PROPERTY, PLANT AND EQUIPMENT

Leases in accordance with IAS 17 that would lead to capitalization of an asset do not exist.

#### 19. INVESTMENT PROPERTY

The building complex Auermühle that contains the distribution center of SolarWorld AG is partially leased to third parties. The respective parts of the building are therefore classified investment property. The market value of these building parts amounts to  $\in$  14.7 million (prior year  $\in$  14.9 million) and, thus, falls short of their carrying amount by  $\in$  0.1 million (prior year  $\in$  0.2 million).

Independent experts determined the market value of the property. Due to the type of the property and the lack of comparative data, no observable market transactions were used as a basis for the assessment of the fair value of the property. Instead, the fair value was determined using the capitalized earnings method in application of the following assumptions.

	2014	2013
Market rent	11.30 €/sqm	11.30 €/sqm
Loss of rent risk	4%	4%
Capitalization rate	5.80%	5.80%
Residual useful life	infinite	infinite

Rental income of € 659k (prior year € 965k) was generated with investment property in the annual period while the leased parts accounted for expenses of € 170k (prior year € 255k). Expenses of € 162k (prior year € 162k) were incurred with regard to the unrented parts. The previous year's disclosures contain a second property until its classification as held for sale.

Limitations regarding the disposability of investment property, contractual obligations to acquire, establish or develop investment property do not exist.

With regard to the reconciliation statement that shows the development of the carrying amount of the investment properties, we refer to the fixed asset movement schedule in note 16.

Future minimum rent payments from the leased parts are as follows:

in k€	2014	2013
Twelve months or less	641	748
2 to 5 years	160	936
Total	801	1,684

### 20. INVESTMENTS MEASURED AT EQUITY

in k€	Dec 31, 2014	Dec 31, 2013
Qatar Solar Technologies Q.S.C. (29%)	10,583	18,891

SolarWorld AG holds a 29 percent investment in the assets and results of Qatar Solar Technologies Q.S.C. domiciled in the Emirate Qatar. Together with Qatar Foundation and Qatar Development Bank, SolarWorld AG is constructing a production facility for polysilicon.

With regard to related party disclosures we refer to note 43.

The following chart includes summarized financial information regarding investments measured at equity. The amounts refer to the SolarWorld group's shares and not to the amount of a notional 100 percent investment.

in k€	2014	2013
Share in assets	274,938	144,407
Of which current	26,949	11,843
Of which non-current	247,989	132,564
Share in liabilities	266,046	128,132
Of which current	21,656	26,896
Of which non-current	244,390	101,236
Share in revenue	44	0
Share in net result for the year	-9,598	-5,309

## 21. OTHER NON-CURRENT FINANCIAL ASSETS

Other financial assets contain the non-current portion of the receivable from negative purchase price in the amount of  $\in$  5.200k. We refer to our comments note 2.3.1. The current proportion is recognized in other current financial assets (compare note 28).

In the previous year it primarily included amounts classified as non-current for reinsurances of € 331k that were accounted for in accordance with IFRIC 14 and IAS 19. The reinsurance contracts were concluded in connection with early retirement obligations and netted with the outstanding wage payments at reporting date. The current proportion is recognized in other current financial assets (compare note 28).

### 22. DEFERRED TAX ASSETS

In part, deferred tax assets result from accounting policies for recognition and measurement of assets and liabilities that differ from tax principles and current loss carryforwards. The development of deferred tax assets is included in the comments on tax expenses (note 12).

## 23. OTHER NON-CURRENT ASSETS

The item concerns the non-current portion of prepayments made on raw materials.

### 24. INVENTORIES

in k€	Dec 31, 2014	Dec 31, 2013
Commodities and supplies	35,062	33,971
Finished goods and merchandise	53,027	35,759
Work in progress	48,047	32,421
Prepayments (current)	21,927	17,000
Total	158,063	119,151

For the purpose of the breakdown above, only solar modules were qualified as finished goods of the group.

In the reporting year, inventory impairments of  $\in$  6,486k (prior year  $\in$  15,222k) were recognized as expenses. As in the prior year, reversals of impairment losses were not conducted.

Almost all inventory items are assigned by way of collateral for the credit facilities and notes. Please refer to our comments under note 32.

## 25. TRADE RECEIVABLES

Trade receivables amounting to € 66,765k (prior year € 17,748k) are assigned as collateral for loan obligations. The following chart illustrates the aging structure of receivables:

in k€	Dec 31, 2014	Dec 31, 2013
Neither past due nor impaired	57,859	36,709
Past due but not impaired		
- up to 30 days	10,746	5,509
- between 31 and 60 days	1,483	695
- between 61 and 90 days	366	185
- between 91 and 180 days	378	197
- between 181 and 360 days	77	68
- exceeding 360 days	4,878	5,496
Impaired	64	0
Total	75,851	48,859

With regard to trade receivables that were not impaired, an indication for the recognition of impairment losses did not exist or impairment losses did not have to be recognized due to existing collaterals. The receivables included in the "between 1 and 90 days" cluster were fully redeemed within the preparation period of the consolidated financial statements. The majority of the receivables included in the "between 91 to more than 360 days" cluster result from wafer sales that mostly originate from long-term agreements. With regard to respective default risks, we refer to note 40.

The following chart illustrates the development of the bad debt allowance:

in k€	2014	2013
As at Jan 1	27,749	29,593
Utilization	-9,625	-2,428
Net release/allocation	786	-58
Currency translation	33	642
As at Dec 31	18,943	27,749

## 26. INCOME TAX ASSETS

Tax assets of € 809k (prior year € 1,353k) are especially due to creditable investment income tax.

## 27. OTHER RECEIVABLES AND ASSETS

in k€	Dec 31, 2014	Dec 31, 2013
VAT receivables	15,274	4,798
Electricity tax refund	5,487	2,172
Receivables from research and development investment subsidies	2,657	1,738
Deferred items	2,364	3,074
Receivables from investment subsidies	1,634	9,527
Other prepayments	505	1,308
Other	4,109	2,617
Total	32,030	25,234

Receivables from investment subsidies concern an expected payment on the basis of the statutory provisions of the Investment Subsidy Act of 2010 in accordance with resolutions of the EU Commission dated July 6, 2010 and March 23, 2011.

Unsettled receivables from electricity tax refunds result from the German Electricity Tax Act.

## 28. OTHER CURRENT FINANCIAL ASSETS

in k€	Dec 31, 2014	Dec 31, 2013
Receivable from negative purchase price	33,800	0
Sub-participation Solarparks of Extremadura S.L., Spain	13,834	13,834
Security deposits	2,003	7,753
Derivative financial instruments	53	103
Liquid funds subject to restrictions on use	17	2,017
Repayment claims	0	59,578
Other financial assets	713	256
Total	50,420	83,541

The decrease in repayment claims in the reporting year results from an agreement concluded with a supplier regarding the continuation of the existing agreements and corresponding reclassification to inventories. We refer to our comments in notes 2.5 and 9.

The sub-investment in Solarparks of Extremadura S.L., Spain, results from a cooperation agreement with a wholly owned subsidiary of Deutsche Bank AG (DB), in which DB grants Solarparc GmbH the right to participate in the result from marketing or alternatively the operation of solar parks in Extremadura (Spain). The recognized carrying amount of the sub-investment offsets an amount payable to DB of € 12,667k (compare note 32), which DB can claim at any time.

### 29. LIQUID FUNDS

Liquid funds almost entirely concern bank balances. At reporting date, these were invested in — mostly short-term — fixed term deposits and day-to-day money with different banks. Bank accounts with a credit balance of € 475k (prior year € 13,555k) are subject to pledge agreements. In the previous year additional minimum cash at hand of € 155k needed to be available in the scope of project financing of photovoltaic facilities and was thus not freely available.

## 30. ASSETS HELD FOR SALE

The increase of assets held for sale compared to previous year is primarily due to the intended sale of a piece of land in the U.S. as well as of acquired production facilities and other assets from Bosch Solar Energy AG. The sale of a SolarWorld AG's Bonn-Buschdorf property in the reporting year had a countervailing effect. Assets held for sale were subject to a write-down of € 325k (prior year € 818k) in the reporting year, which are included under other operating expenses.

### 31. EOUITY

#### a) Subscribed capital

At reporting date, the capital stock amounts to € 14,896k (prior year € 111,720k) and only includes common shares, namely 14,896,000 (prior year 111,720,000) non-par bearer shares.

#### b) Authorized capital

The shareholders' meeting of May 20, 2010 revoked the capital stock increases authorized in previous shareholders' meetings and authorized the board of directors for a maximum period of five years, i.e. until May 20, 2015, to increase − upon approval of the Supervisory Board − the capital stock once or more often by up to an overall amount of € 55,860,000.00 by issuing new bearer or registered shares for cash contribution or contribution in kind.

On August 7, 2013, the extraordinary shareholders' meeting of SolarWorld AG passed the cancellation of the authorized capital without replacement. The registration of this resolution in the Commercial Register (Handelsregister) was linked to the implementation of the capital measures that were also passed by the shareholders' meeting of August 7, 2013, and that were essential parts of the restructuring concept of SolarWorld. Registration was effected on February 24, 2014.

SolarWorld AG's first Annual General Meeting since the completion of financial restructuring was held on May 30, 2014. At the meeting, shareholders authorized the Management Board to increase the company's capital stock by to a maximum total of € 7,448,000.00 once or several times in accordance with the Supervisory Board until May 30, 2019 by issuing new, non-par bearer shares or registered shares in exchange for cash contributions or contributions in kind. The aim is to enable a flexible and rapid response to market conditions in the future while minimizing the negative impact on the company's share price.

#### c) Conditional capital

SolarWorld AG does not have any conditional capital.

#### d) Treasury shares

By resolution of the shareholders' meeting of May 20, 2010, the board of directors was authorized to purchase treasury shares. In accordance with Article 71, Section 1 No. 8 AktG, the authorization is subject to a fixed term, expires per midnight of May 20, 2015, and is limited to an extent of up to 10 percent of the capital stock.

In May 2014 SolarWorld AG sold 6,164 treasury shares in total for an amount of € 177k. Thus, no treasury shares were held by the company at balance sheet date (prior year 924,607 shares; after simplified capital reduction 6,164 shares). The effects from this disposal on the individual items in equity are shown in the consolidated statement of changes in equity.

#### e) Other reserves

## Currency translation reserve

The currency translation reserve contains differences arising from currency translation in the scope of translating annual financial statements of foreign subsidiaries.

## Hedging reserve and AfS reserve

As in the prior year, the hedging reserve does not contain any gains and losses from hedging relationships that were classified as effective in the scope of cash flow hedges. As in the prior year, an AfS reserve does not exist from the change of the fair value of the assets (AfS assets) available for sale. Thus, as before, deferred taxes were not offset with the hedging reserve.

#### f) Non-controlling interests

As in the prior year, non-controlling interests do not exist.

## g) Dividend distribution

No dividend was distributed for 2013.

# 32. NON-CURRENT AND CURRENT FINANCIAL LIABILITIES

in k€	Dec 31, 2014	Dec 31, 2013
Bonds	199,385	551,446
Senior Facility Agreement	157,990	0
Super Senior Facility Agreement	50,000	0
Purchase price obligation Auermühle Payment obligation sub-investment Solarparks of Extremadura S.L., Spain	17,825	16,903
Bank loans	12,667 8,056	12,667
Issued assignable note loans	0,030	372,032
Derivative financial instruments	0	370
Other	3,956	3,646
Total	449,879	1,022,137

The financial restructuring of SolarWorld AG was completed on February 24, 2014. As a result, the financial liabilities of Solar-World AG were reduced from around € 1 billion by € 570 million to € 427 million and the financial restructuring which began in January 2013 was completed. The resulting restructuring profit of € 555.7 million is recognized and disclosed in financial result. The reorganized financial liabilities consist of two newly issued bonds and a newly structured loan (Senior Facility Agreement or short SFA). In addition, SolarWorld took out a new loan (Super Senior Facility Agreement or short SSFA) from Qatar Solar Technologies Q.S.C. in the amount of € 50 million on February 25, 2014.

In connection with the newly structured financial liabilities, Solar-World AG and ist affiliates Solar-World Industries Sachsen GmbH, Solar-World Innovations GmbH, Solar-World Industries Deutschland GmbH, Solar-Parc Ziegelscheune GmbH, Solar-Parc Verwaltungs GmbH, Solar-World Americas Inc. and Solar-World Industries America LP provided all its material assets as transaction collaterals. In detail, this concerns the pledging of all current and future receivables, bank accounts, inventories, moveable fixed assets and current assets, IP-rights and Internet domains. In addition, all shares in subsidiaries were pledged.

The purchase price obligation Auermühle results from concluded options that entitle SolarWorld AG to acquire another 45 percent of the shares in Auermühle.

The payment obligation for the sub-investment Solarparks of Extremadura S.L., Spain, is connected with the sub-investment in Solarparks of Extremadura S.L., Spain, recognized in other financial assets. We refer to our comments in note 28.

## 33. ACCRUED INVESTMENT GRANTS

The item includes accrued investment subsidies and investment grants as well as accrued tax credits, even to the extent to which they are to be reversed in the course of the following year because they exclusively concern property, plant and equipment.

The investment subsidies and investment grants are subject to a number of requirements. Based on today's knowledge, all of those requirements will be met with the restrictions stated below. Thus, repayment obligations are not expected to arise.

In prior years, SolarWorld Industries Sachsen GmbH (prior year Solar Factory GmbH) received investment grants from Sächsische Aufbaubank. Due to not fully meeting the employment guarantees in the eligibility period and as already stated in the previous year, there is a general risk that a proportion of the grants might have to be repaid. Due to the current state of negotiations with Sächsische Aufbaubank, however, we still do not expect that we will have to refund the investment grants.

## 34. NON-CURRENT AND CURRENT PROVISIONS

in k€	As at Jan 1, 2014	Assumed in a business combination	Utilization	Reversal	Addition	Currency translation	As at Dec 31, 2014
Warranties	22,951	0	161	1,460	2,669	654	24,653
Pensions	8,772	256	477	0	2,153	0	10,704
Litigation risks	3,653	0	1,094	963	7,246	348	9,190
Contingent losses from pending contracts	1,475	0	1,255	251	0	31	0
Restoration obligations	1,379	3,500	1,596	2,997	0	91	377
Other provisions	2,259	0	812	192	3,249	18	4,522
Total	40,489	3,756	5,395	5,863	15,317	1,142	49,446

Regarding the additions assumed in a business combination please refer to note 2.3.1 b).

The provision for warranties is set up for specific individual risks, for the general risk of being called upon in accordance to statutory warranty regulations and performance guarantees granted with regard to photovoltaic modules sold. The provision for the risk of being called upon for performance guarantees is set up in an amount of 0.25 percent of all of SolarWorld group's module revenue. This lump sum rate represents the current estimation of the discounted total expenses over the entire term of the performance guarantee (performance guarantee is granted for a period of 25 to 30 years). Thus, it is subject to compounding at matched maturity interest rate. In the reporting period, this makes for interest expenses of € 746k (prior year € 1,120k), which are included in other financial expenses (compare note 11.)

Provisions for litigation risks primarily include claims for damages in connection with a possible infringement of trademark rights by SolarWorld AG, pending legal proceedings with current and former employees in the U.S. on account of alleged violations of labor law regulations and the risk of possible additional tax payments in the U.S. and Germany. The Californian tax authority is of the opinion that the result of the entire group must be taken as assessment basis for the taxation of the US-American subsidiaries in California.

The provision for possible additional tax payments in Germany results from an ongoing tax field audit. In this respect, SolarWorld has elected to make partial use the exemption set out in IAS 37.92, since SolarWorld's negotiating position in those litigations may otherwise be seriously prejudiced.

The provision for restoration obligations mainly concerns leasehold improvements that have to be removed by SolarWorld group after expiration of the lease term. Other than in the previous year that provision is fully current in the reporting period. In the previous period, interest expenses of € 35k from the compounding of that provision with a term-congruent interest rate have incurred, which are included in other financial expenses (compare note 11).

Other provisions include provisions in connection with disposal obligations for PV modules in an amount of  $\in$  1,177k (prior year  $\in$  1,065k). It is subject to compounding at matched maturity interest rate. In the reporting period, this makes for interest expenses of  $\in$  83k, which are included in other financial expenses (compare note 11).

## PENSION PROVISIONS

Pension provisions include promises of retirement benefits to employees of the group on the basis of direct compensation. The pension claims earned depend on the amount of pay at the time of retirement.

The following measurement parameters were uniformly used as a basis for calculating the defined benefit obligation (DBO):

in %	Dec 31, 2014	Dec 31, 2013
Discount rate	1.6 to 2.2	3.3
Future salary increase	3.0	0.0
Rate of pension progression	1.0 to 1.5	2.0

The Heubeck standard tables RT 2005 G were used with regard to mortality and invalidity.

The amount included in the consolidated financial statements arising from defined benefit obligation is as follows:

in k€	Dec 31, 2014	Dec 31, 2013
Present value of defined benefit obligation	10,848	8,772
Fair value of plan assets	-144	0
Pension provision	10,704	8,772

Movements in the present value of the defined benefit obligation in the current year were as follows:

in k€	2014	2013
Extent of obligation as at Jan 1	8,772	8,605
Addition from business combination	401	0
Interest cost	299	327
Current service cost	38	0
Pension payments and other utilizations	-432	-431
Transfers	-44	0
Gains (-) and losses (+) from the remeasurement:		
- Actuarial losses due to changes in the financial assumptions	1,669	523
- Actuarial losses / gains from experience adjustments	145	-252
Extent of obligation as at Dec 31	10,848	8,772

Movements in the fair value of the plan assets in the current year were as follows:

in k€	2014	2013
Opening balance as at Jan 1	0	0
Addition from business combination	144	0
Interest income	4	0
Gains (+) and losses (-) from the remeasurement:		
- Actuarial losses from experience adjustments	-4	0
Closing balance as at Dec 31	144	0

The plan assets have been deposited in cash into an appropriate Contractual Trust Arrangement.

Alternative discount rates and rates of pension progression would result in the following changes in the defined benefit obligation and the corresponding reverse changes in equity (before taking into account deferred tax effects):

Measurement parameter in k€	Sensitivity		Change in the DBO 2014		Change in the DBO 2013
Discount rate	+/- 1.00%	-1,346	1,678	-997	1,225
Rate of pension progression	+/- 0.50%	617	-566	489	-448

## 35. OTHER NON-CURRENT AND CURRENT LIABILITIES

in k€	Dec 31, 2014	Dec 31, 2013
Outstanding invoices	15,902	12,837
Other personnel obligations	11,836	6,256
Customer advances	6,650	23,994
VAT	5,990	1,323
Equity contribution obligation	1,051	1,051
Other	7,132	9,354
Total	48,561	54,815

Other personnel liabilities substantially consist of variable compensation claims of employees, outstanding wages and salaries and holiday entitlements. In the reporting period interest payable on parts of the variable compensation claims of employees in the amount of  $\in$  16k (prior year  $\in$  96k) incurred, which is included in interest expenses (note 11 c).

Customer advances mainly concern advances from long-term wafer purchase agreements.

The claimed obligation to contribute equity concerns a capital increase called for by Qatar Solar Technologies Q.S.C. in November 2013 that was based on a corresponding shareholder agreement. Payment is deferred until March 31, 2015. We refer to our comments note 20.

## **36. DEFERRED TAX LIABILITIES**

Deferred tax liabilities entirely result from accounting policies for recognition and measurement of assets and liabilities that differ from tax principles. The item's development is included in the comments on tax expenses (note 12).

### 37. INCOME TAX LIABILITIES

The item includes corporation, trade and capital yields tax assessed by the tax authorities and calculated or estimated by the consolidated entities as well as corresponding foreign taxes resulting from tax laws.

## OTHER DISCLOSURES

### 38. OTHER FINANCIAL LIABILITIES

in m€	Dec 31, 2014	Dec 31, 2013
Order commitments from commodity and license agreements		
- within one year	87	59
- between 1 and 5 years	105	75
- more than 5 years	47	55
Order commitments from investments in fixed assets		
- within one year	5	7
- between 1 and 5 years	0	1
- more than 5 years	0	0
Obligations from perennial rent agreements		
- within one year	2	2
- between 1 and 5 years	3	3
- more than 5 years	0	0
Total	249	202

The obligations from multi-year rental agreements mostly concern office buildings and vehicles. The terms of the lease agreements for buildings and vehicles run from 3 to 11 and 3 to 4 years, respectively. The lease agreements for vehicles do not include any significant purchase or extension options. One lease agreement for a building includes the option to extend the contract twice by 5 years each. The contracts do not impose any restrictions on SolarWorld AG.

## 39. CONTINGENCIES AND EVENTS AFTER BALANCE SHEET DATE

A comprehensive presentation of corporate risks and events after balance sheet date is included in the group management report which, in accordance with German laws and regulations, is to be prepared and published at the same time as these consolidated financial statements. Amongst others, the group management report goes into detail with regard to the expectations for future development of selling prices and the overall market.

## **SALES SUBSIDIARY FOUNDED IN JAPAN**

In January 2015, SolarWorld AG formed a subsidiary company named SolarWorld Japan K.K., with an office in Tokyo. As a result, SolarWorld will be present with its own sales office in the growing Japanese market from now on.

#### U.S. IMPORT DUTIES CAME INTO FORCE

On January 21, 2015, the U.S. International Trade Commission (ITC) made a final decision in SolarWorld's second set of trade cases to impose U.S. anti-dumping and anti-subsidy duties on imports of solar products from China and Taiwan. The ITC found injury to the U.S. industry, approving combined duties of about 75 percent for most Chinese imports, and 20 percent for most Taiwanese imports, which the U.S. Department of Commerce had issued in December 2014. The duties came into force on February 1, 2015.

#### SALE OF PROPERTY IN THE U.S.

In January 2015 a piece of land in the U.S. classified as held for sale at balance sheet date has been sold at its carrying amount.

#### SHAREHOLDER CONTRIBUTION

In January 2015 Qatar Solar Technologies Q.S.C. claimed an obligation to contribute equity amounting to US\$ 11.6 million. The claimed obligation is based on a corresponding shareholder agreement. According to the agreements from the financial restructuring the obligation will be paid by Qatar Solar S.P.C. and granted to SolarWorld AG as a further loan.

## **FEASIBILITY STUDY WITH POSITIVE RESULT**

In March 2015, the SolarWorld Industries Thüringen GmbH concluded its feasibility study on the manufacturing of monocrystalline solar ingots. The results of the study were positive. Thus, the SolarWorld group has decided to start producing crystals for the manufacturing of wafers at its Arnstadt site. The production systems will be gradually put into operation, starting in the second quarter of 2015. The planned yearly production capacity amounts to 500 MW

### SHAREHOLDER STRUCTURE CHANGED

In February 2015, Strategic Value Master Fund Ltd. and a number of its controlling companies announced that their respective share of capital stock with voting rights had dropped below the threshold of 3 percent of the capital stock of SolarWorld AG. Consequently, the share of voting rights held by Victor Khosla, who as Chief Investment Officer controls the companies within the Strategic Value Partners group, fell first below 5 and subsequently below 3 percent. SolarWorld AG published the corresponding voting rights announcements pursuant to § 26 of the German Securities Trading Act (WpHG). A summary is available on the company's website at www.solarworld.de/notification-of-voting-rights.

#### APPROVAL OF THE FINANCIAL STATEMENTS

These financial statements are expected to be approved and authorized for issue by the Supervisory Board in its meeting on March 18, 2015.

# 40. CAPITAL MANAGEMENT AND FINANCIAL INSTRUMENTS

#### a) Management of capital structure

SolarWorld group's capital management is especially aligned to ensure the group's financing. This includes the safeguarding of a constant level of minimum liquidity that is available. Directly managed by the Management Board, SolarWorld AG is responsible for planning and monitoring the group's liquidity as well as the raising of capital. Short-term liquidity management is carried out with a planning horizon of 13 weeks. The corresponding planning is updated twice a month. Thus, in the scope of the financial restructuring SolarWorld AG was able to reduces its financial liabilities from some € 1 billion to € 427 million and to a adapt loan obligations to the earning power and financial requirements of the company. Financial liabilities now consist of two publicly-traded bonds and a senior credit facility. Moreover, in the scope of the financial restructuring process, SolarWorld received a new Super Senior credit facility of € 50 million from Qatar Solar Technologies Q.S.C. All credit facilities have terms until early 2019. Hence, SolarWorld Group returned to having a solid capital structure with an equity ratio of more than 25 percent.

### b) Principles and objectives of financial risk management

In its capacity as an internationally operating group, SolarWorld AG is exposed to market, credit and liquidity risks with regard to its assets, liabilities and future transactions already set and planned. Objective of financial risk management is the limitation of these risks by way of operating and finance-oriented activities.

Main features of financial policies are agreed upon in the board of directors and with the respective subsidiaries on a regular basis. Selected derivative and non-derivative financial instruments are utilized to limit or take risks in a controlled way, depending on the respective risk assessment, planning ability regarding future transactions and current market situation. As a basic principle, however, only those risks are addressed that have short- to medium-term consequences on the group's cash flow. Implementation of financial policies as well as risk management is handled by the respective departments, which report to the board of directors on a regular basis.

Derivative financial instruments are regularly used as hedging instruments but not for trading or speculation purposes. To exploit short-term market fluctuations, possibly existing hedging instruments are closed out economically. To minimize default risks, hedging agreements are only concluded with leading financial institutions that have a credit rating in the investment grade area.

With regard to the investment of liquid funds, it is SolarWorld group's primary objective to minimize risks from the change of market prices or the creditworthiness of creditors and to obtain a return rate at money market level in the process. SolarWorld group therefore mostly invests uncommitted liquid funds in demand deposits (fixed-term deposits and day-to-day money). To limit the default risk, demand deposits are only placed with leading financial institutes with a credit rating in the investment grade area. Moreover, central management and broad diversification of the investments with regard to debtors works against the establishment of risk concentration.

#### c) Market risks

With respect to market risks, SolarWorld group is especially prone to risks from the change in currency translation, commodity prices and interest rates.

For the presentation of market risks, IFRS 7 requires sensitivity analyses, which show the consequences of hypothetical changes of relevant risk variables on result and equity. The periodic consequences are determined by showing how the hypothetical changes of the risk variables could have affected the existing financial instruments at balance sheet date. It is therefore assumed on the basis of existing hedging relations that net liabilities, the relation of fixed and variable interest on liabilities and derivatives and the proportion of foreign currency financial instruments remain unchanged.

Currency risks in terms of IFRS 7 arise on financial instruments that are denominated in a currency different from the functional currency and are of a monetary nature. Currency risk related differences from the translation of financial statements into the group currency remain unaccounted for. Relevant risk variables are basically all non-functional currencies in which SolarWorld group holds financial instruments.

Interest risks exist both on the borrowing and the deposit side. Thus, analysis of interest risks is carried out on the basis of net debt whereas it is assumed that interest for variably interest-bearing borrowings and deposits change in equal measure. Moreover, only those interest-bearing financial instruments whose interest level depends exclusively on market interest development are included in the analysis.

Risks from the change of commodity prices result from commodity derivatives concluded for hedging purposes with regard to the corresponding commodity purchases.

### aa) Currency risks

SolarWorld group's currency risks mainly result from operating activities. Foreign currency risks are in principal only hedged to the extent to which they influence the group's cash flows. On principle, risks that result from the translation of assets and liabilities of foreign subsidiaries into the group reporting currency and influence the group's cash flow only upon disposal of the subsidiary are not hedged. However, hedging of these risks is not entirely ruled out in the future

With regard to operating activities, the individual group companies mostly handle their operations in utilization of the respective functional currency. For the rest, SolarWorld group is exposed to foreign currency risks in connection with foreign currency transactions already set and planned. These mainly concern transactions in US\$ in connection with the procurement of raw materials as well as intragroup transaction in US\$ in connection with the sale of modules. As in the prior year, no hedging relationships existed for these transactions at balance sheet date.

Aside from a proportion of liquid funds and trade receivables and liabilities, the material financial instruments are mainly denominated in functional currency. Hence, exchange rate changes basically influence the result only with regard to these foreign currency items.

If the Euro revalues (devalues) towards the US\$ by 10 percent, this will make for a negative (positive) effect on earnings before income tax of  $\in$  7,214k (€ 8,540k). If the Euro revalues (devalues) towards the British pound by 10 percent, this will make for a negative (positive) effect on earnings before income tax of  $\in$  276k (€ 338k). With regard to all other changes in exchange rates, the group's currency risk is insignificant.

## bb) Interest risks

At reporting date, all borrowed capital of the group basically bears variable interest on the basis of the EURIBOR, whereas an EURIBOR rate of at least 1 percent is applicable. Presently, borrowed capital is therefore de facto subject to fixed interest rates. As uncommitted liquid funds are mainly invested for the short-term, SolarWorld faces an interest risk on the deposit side. Moreover, the group is

subject to interest risks in connection with an interest rate limit transaction in form of a maximum rate agreement (cap), which is not designated into a hedging relationship.

If the market interest rate level increased by 10 basis points, the positive effect on earnings before tax would amount to  $\in$  177k (prior year by 50 basis points  $\in$  1,014k). If the market interest rate level decreased by 10 basis points, the negative effect on earnings before tax would amount to  $\in$  177k (prior year by 50 basis points  $\in$  924k).

#### cc) Other price risks

In addition, SolarWorld group concluded commodity derivatives to hedge the risk of increasing silver prices. As the derivatives are not integrated in a valid hedging relationship, changes in the derivatives' value affect the earnings before tax.

If the silver price rate increased or decreased from – at reporting date – some US\$ 16/kg to US\$ 20/kg or US\$ 10/kg, the earnings before tax would be  $\in$  1,728k higher or  $\in$  2,954k lower, respectively.

#### d) Credit risks

For the most part, SolarWorld group's uncommitted liquidity is invested in demand deposits with German banks. Thus, the default risk is considered marginal in this respect.

With regard to supplies to non-group customers, depending on type and amount of the respective service, collateral is required, credit ratings/references are collected or historical data from previous business relations — especially as regards payment behavior — is used for avoiding default in payment.

To further limit credit risks, receivables from non-group module sales are mostly secured via credit insurances. Hence, the respective credit risk is regarded rather remote.

With respect to receivables from wafer sales that mainly originate from long-term contracts, credit insurances do not exist for the most part as these customers have paid extensive advances, which are non-refundable especially in the event of insolvency. Thus, the respective credit risk is economically provided for.

For the rest, the maximum credit risk results from the carrying amounts.

#### e) Liquidity risks

For SolarWorld group, liquidity risks arise from the obligation to redeem liabilities in full and in due time. It is therefore the task of the cash and liquidity management to assure the individual group companies' liquidity at any time.

Cash management for operating activities is carried out in a decentralized manner within the individual business units. SolarWorld AG predominantly balances the respective requirements and surpluses regarding the individual units' means of payment in a centralized way by both cash pooling agreements or granting and accepting intra-group loans. Central cash management determines the group-wide financial resources requirements on the basis of business planning.

The final restructuring agreement for carrying out the restructuring, which contains individual financial restructuring steps, was concluded on January 6, 2014.

On February 24, 2014, the execution of the non-cash capital increase of SolarWorld AG was entered in the commercial register of the Bonn local court, thereby reducing SolarWorld AG's financial liabilities by  $\mathop{\in} 570$  million from some  $\mathop{\in} 1$  billion to  $\mathop{\notin} 427$  million and finalizing the financial restructuring of SolarWorld AG that had started in January 2013.

The reorganized financial liabilities consist of two newly issued bonds with a nominal value as at December 31, 2014, of € 51.7 million and € 147.7 million and a newly structured loan (Senior Facility Agreement or short SFA) of € 158.0 million. In addition,

SolarWorld took out a new loan (Super Senior Facility Agreement or short SSFA) from Qatar Solar Technologies Q.S.C. in the amount of € 50.0 million on February 25, 2014.

All new financial liabilities fall due within 5 years and include so-called "cross-default clauses", which give the creditors an extraordinary right to give notice if SolarWorld AG does not meet its obligations from other borrowed funds.

The SFA and SSFA include provisions that entitle the creditors to extraordinary termination of the contract and demand premature repayment of the loans if certain covenants are not met. The covenants are mainly indicators regarding the debt-equity and interest cover ratio that have to be complied with from December 31, 2015 and indicators regarding the minimum liquidity and maximum debt.

In addition, creditors of borrowed funds in a nominal amount of € 407 million (prior year € 931 million) can demand early repayment of the loans in the event of a change of control at SolarWorld AG.

These regulations are supplemented by further standard provisions on termination.

The following chart shows the future undiscounted cash flows of the financial liabilities (interest and repayment), as they would contractually result without taking into account any unscheduled repayments. Unscheduled repayments are contractually agreed if certain liquidity or cash flow indicators are met or certain material cash flow-relevant transactions took place.

## UNDISCOUNTED CASH FLOWS OF FINANCIAL LIABILITIES

in k€	Total	2015	2016	2017	2018	2019	2020	2021 et seqq.
Bank loans	-9,793	-956	-7,711	-310	-298	-287	-165	-66
Bonds	-251,466	-24,967	-27,734	-12,093	-12,093	-174,579	0	0
Senior Facility Agreement	-197,406	-24,534	-26,209	-9,031	-9,031	-128,601	0	0
Super Senior Facility Agreement	-64,671	-3,472	-3,558	-3,548	-3,549	-50,544	0	0
Total	-523,336	-53,929	-65,212	-24,982	-24,971	-354,011	-165	-66

## f) Fair values, carrying amounts and residual terms of financial instruments in accordance with categories

The following chart shows fair values and carrying amounts of financial assets and liabilities included in the individual line items:

Assets Dec 31, 2014	Measure	ment categories IAS			
in k€	Held for trading	Loans and receivables	Available for sale	Derivatives in hedging relationships	Total carrying amounts
Trade receivables	-	75,851	-	-	75,851
Other receivables and assets	-	291	-	-	291
Other financial assets	53	41,787	13,834	-	55,674
Liquid funds	-	177,097	-	-	177,097
Total	53	295,026	13,834	-	308,913

Assets Dec 31, 2013	Measure	ment categories IAS				
in k€	Held for trading	Loans and receivables	Available for sale	Derivatives in hedging relationships	Total carrying amounts	
Trade receivables		48,859	-	-	48,859	
Other receivables and assets	-	906	-	-	906	
Other financial assets	103	69,604	13,834	-	83,541	
Liquid funds	-	163,662	-	-	163,662	
Total	103	283,031	13,834	-	296,967	

Liabilities Dec 31, 2014	Measurement cate	egories IAS 39			
in k€	Financial liabilities recognized at amortized cost	Financial liabilities designated as at fair value	Purchase price commitment from business acquisition	Total carrying amounts	
Financial liabilities	431,147	907	17.825	449,879	
Trade payables	42,291	=	=	42,291	
Other liabilities	-	-	-	-	
Total	473,438	907	17,825	492,170	

Liabilities Dec 31, 2013	Measurement cate	egories IAS 39			
in k€	Financial liabilities recognized at amortized cost	Financial liabilities designated as at fair value	Purchase price commitment from business acquisition	Total carrying amounts	
Financial liabilities	1,004,022	1,212	16,903	1,022,137	
Trade payables	17,456	-	-	17,456	
Other liabilities	440	-	-	440	
Total	1,021,918	1,212	16,903	1,040,033	

	Residual terms	F			
exceeding 5 years	between 1 and 5 years	up to 1 year	Total carrying amounts	IFRS 7 not applicable	Total fair values
-	-	75,851	75,851	-	75,851
=	=	32,030	32,030	31,739	291
-	5,254	50,420	55,674	-	55,674
-	=	177,097	177,097	-	177,097
-	5,254	335,398	340,652	31,739	308,913
	Residual terms	F			
exceeding 5 years	between 1 and 5 years	up to 1 year	Total carrying amounts	IFRS 7 not applicable	Total fair values
-	<del></del>	48,859	48,859		48,859
-	-	25,234	25,234	24,329	906
-	-	83,541	83,541	-	83,541
-	-	163,662	163,662	-	163,662
-	-	321,296	321,296	24,329	296,967
	Residual terms	-			
exceeding 5 years	between 1 and 5 years	up to 1 year	Total carrying amounts	IFRS 17 not applicable	Total fair values
-	391,582	58,297	449,879		317,645
-		42,291	42,291		42,291
-	111	48,450	48,561	48,561	-
-	391,693	149,038	540,731	48,561	359,936
	Residual terms				
exceeding 5 years	between 1 and 5 years	up to 1 year	Total carrying amounts	IFRS 7 not applicable	Total fair values
exceeding 5 years	between				
exceeding 5 years	between 1 and 5 years	up to 1 year	amounts		fair values
exceeding 5 years	between 1 and 5 years	up to 1 year 485,508	1,022,137		<b>fair values</b> 421,369

The fair value of financial assets and financial liabilities needs to be presented in the amount that could be generated if the respective instruments were exchanged in the scope of a current transaction (with the exception of forced sale or liquidation) between business partners willing to contract. The methods and assumptions used for determining fair values are:

- Trade receivables, other receivables and assets, liquid funds, trade liabilities and the material proportion of the other liabilities in terms of IFRS 7 are subject to short residual terms. Thus, their carrying amounts at reporting date approximately equal fair value.
- The fair value of other financial assets and financial liabilities is determined on the basis of stock market prices on active markets if available.
- The fair value of unlisted other financial assets is estimated in application of appropriate measurement methods or on the basis of conducted transactions.

- The fair value of unquoted SFA and SSFA is estimated at a uniform 67.54 percent of the nominal value. This equals the mid-market rate of the two SolarWorld AG bonds traded on the capital market. This does not apply for bank loans or parts thereof if collateral is provided. These parts are recognized in full.
- The fair value of derivative financial instruments with existing
  observable input parameters on the market is estimated by
  discounting future cash flows in application of these input
  parameters. The used input parameters concern yield curves,
  commodity spot and forward rates as well as volatilities. The fair
  value of liabilities from terminable non-group investments in a
  fully consolidated partnership was determined on the basis of the
  proportionate annual result at amortized cost as no significant
  value-impairing factors existed.

Financial instruments accounted for at fair value at the reporting date can be attributed to Level 1, 2 or 3 (note 2.1) for measurement and presentation of fair values as follows:

		Dec 31, 2014				Dec 31, 2013		
in k€	Total	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3
Financial assets measured at fair value								
held for trading	53	-	53	=	103	-	103	-
available for sale	13,834	-	-	13,834	13,834	-	-	13,834
Financial liabilities measured at fair value								
held for trading	-	-	-	-	-370	-	-370	-
from terminable partnership interests	-907	-	-	-907	-842	-	-	-842
Total	12,980	-	53	12,927	12,725	-	-267	12,992

The following chart shows the development of financial instruments included in level 3 over the course of the business year:

in k€	2014	2013
As at Jan 1	12,992	13,007
Losses recognized in other financial result	-65	-15
As at Dec 31	12,927	12,992

The financial instruments still held at balance sheet date that were assigned to level 3 made for a netted loss of  $\in$  -65k (prior year  $\in$  -15k) in 2014, which is included in other financial result.

#### g) Net gains and losses by measurement category

To the extent to that they are assignable to financing or investment activities, net gains and losses of the measurement categories "financial assets designated as at fair value through profit or loss" and "financial assets held for trading" are included in other financial result (note 11). In addition to results from market value measurement, they also include interest, dividend and currency effects. Furthermore, net gains and losses from "financial assets held for trading" that are assignable to operations have to be taken into account as well. In total, the net loss from "financial assets held for trading" amounts to € -168k (prior year € -1,163k).

In addition to the exchange gains mentioned below, net gains and losses of the measurement category "loans and receivables" mainly contain impairment losses in an amount of € 435k (prior year € 627k). The latter are included in other operating expenses.

With respect to the measurement categories "loans and receivables" and "financial liabilities measured at amortized cost", net gains and losses need to take losses from currency effects into account, which were not subdivided for reasons of efficiency. The netted exchange gains for the reporting period amount to € 10,529k (prior year exchange losses € -4,655k). To the extent to that they concern transactions in the scope of operations and financing transactions, they are recognized in other operating income or other operating expenses and other financial result, respectively.

Apart from a portion of the mentioned currency effects, the net result of "financial liabilities measured at amortized cost" includes the restructuring profit of € 555.7 million that is recognized and disclosed in other financial result. We refer to note 11.

Thus, net income from the measurement categories "loans and receivables" and "financial liabilities measured at amortized cost" amount to a total of € 565,821k (prior year net losses of € -5,282k).

As in the prior year, neither interest income nor additions to the AfS reserve were recognized with regard to "financial assets available for sale" in the reporting year.

#### h) Hedging

Hedging that required hedge accounting did not exist in the reporting period.

#### 41. COMMENTS ON THE CASH FLOW STATEMENT

#### a) Cash flow from operating activities

Cash flow from operating activities was prepared in accordance with the indirect method. At first, the pretax result used as a starting point is adjusted by significant non-cash earnings and expenses. This makes for the cash flow from operating results. Cash flow from operating activities takes the changes of net current assets into account.

Non cash-effectives expenses and income of the business year essentially include the gain from initial purchase accounting, income from the reversal of advances received and impairment losses of prepayments made, inventories and receivables.

Interest paid and interest received is included in cash flow from financing activities and cash flow from operating activities, respectively.

#### b) Cash flow from investing activities

The cash flow from investing activities includes payments for asset investments as well as investment grants received for this purpose. Cash receipts from the disposal of fixed assets and financial investments are also included. Cash receipts from the disposal of fixed assets primarily result from the sale of Solarparc GmbH's photovoltaic operations. For details, we refer to our comments in note 2. Cash receipts from Bosch Solar Energy AG arising from the negative purchase price agreed are also included under this heading. Please refer to note 2.3.1 b).

## c) Cash flow from financing activities

Cash flow from financing activities is characterized from the repayments of financial liabilities. The most substantial components are scheduled repayments agreed within the financial restructuring program. In addition to the repayment of financial liabilities that can be taken from the cash flow, the sale of Solarparc GmbH's photovoltaic operations further reduced the financial liabilities by  $\in$  1.0 million while the deconsolidation of Solarparc Projekt IV GmbH & Co. KG further reduced it by  $\in$  1.7 million. These are noncash transactions, as each purchaser assumed the corresponding liability. Finally, the item shows interest paid and restructuring expenses incurred with regard to compensation and restructuring fees for creditors.

#### d) Cash and cash equivalents

As in the prior period, cash and cash equivalents at the end of the period exclusively consist of liquid funds as recognized on the consolidated balance sheet. Cash and cash equivalents whose availability is restricted for more than 3 months are included in financial assets. Bank accounts with a credit balance of € 475k (prior year € 13,555k) are subject to pledge agreements. In the previous year additional minimum cash at hand of € 155k needed to be available in the scope of project financing of photovoltaic facilities and was thus not freely available.

## **42. CONTINGENT LIABILITIES**

Our subsidiary SolarWorld Industries Sachsen GmbH (formerly Deutsche Solar GmbH) is currently the defendant in a court proceeding with a silicon supplier. The subject of the court proceeding is the non-acceptance of silicon from long-term silicon contracts concluded with this silicon supplier. Due to the non-acceptance, the silicon supplier claims a total of USD 676 million on the basis of the "take or pay" obligation and in damages. On the basis of external legal opinions, the company believes that the silicon contracts in question violate European antitrust law, which could mean that the purchase obligation as well as the contracts per se might be null and void. At this point in time the outcome of the proceedings cannot be estimated. Depending on the outcome, however, it is possible that SolarWorld Industries Sachsen GmbH might be liable for damages up to the claimed amount.

Some former bondholders cancelled their bonds during the financial structuring process. SolarWorld AG believes that the notices given are not effective, as - in accordance with external expert reports no grounds for cancellation existed, neither from the conditions of the bonds nor for good cause. The Frankfurt am Main regional court dismissed several legal actions in this matter. The Frankfurt higher regional court, however, is of the opinion that the cancellations given in the period between convocation of the creditors' meetings on August 5/6, 2013 and the respective creditors' meeting are effective. SolarWorld AG launched an appeal with the Federal Civil Court in this matter, the outcome of which is still pending. Other proceedings are pending with the Bonn regional court and the Cologne higher regional court. Should, contrary to our expectations, these proceedings be decided in favor of the plaintiffs, SolarWorld will have to pay off the cancelled bonds at full nominal value plus accrued interest. This concerns bonds in a nominal value of € 1.4 million. In this case, however, the bondholders will have to return all benefits received in the scope of the restructuring process.

## 43. RELATED PARTY DISCLOSURES

The following material transactions involving related parties were conducted in the annual period 2014:

Administration and commercial property in Bonn as well as a solar park in Freiberg were rented and leased from Dr.-Ing. E. h. Frank Asbeck and close family members, the annual rent and lease payments amounting € 1.3 million (prior year € 1.2 million). For other services and on-charges of costs incurred especially in connection with the management of solar parks, the net amount of € 354k (prior year € 251k) was invoiced to Dr.-Ing. E. h. Frank Asbeck and his individual enterprise. At the end of the period, this resulted in a receivable from Dr.-Ing. E. h. Frank Asbeck in an amount of € 148k (prior year € 3k).

On October 22, 2014, SolarWorld AG & Solar Holding GmbH in GbR Auermühle took out a € 900k loan from an entity directly controlled by Dr.-Ing. E. h. Frank Asbeck. In the reporting period 2014, the respective interest amounts to € 11k, which is recognized as a liability at reporting date.

Services and on-charges of costs incurred in the amount of € 312k (prior year € 363k) were rendered to entities indirectly and directly controlled by Dr.-Ing. E. h. Frank Asbeck. No receivables from this transaction are unsettled at the end of the period (prior year € 49k).

Entities controlled by Dr.-Ing. E. h. Frank Asbeck rendered services in an amount of € 78k (prior year € 0k) to SolarWorld group. Liabilities from this transaction do not exist at reporting date.

SolarWorld took out a new loan (Super Senior Facility Agreement or short SSFA) from Qatar Solar Technologies Q.S.C., Qatar, in the amount of € 50.0 million on February 25, 2014. Several collaterals were provided for the loan. Please refer to note 32. The respective interest payable for the reporting period of € 2,575k was fully paid at reporting date.

SolarWorld group rendered deliveries and other services of € 0.2 million (prior year € 0.1 million) to Qatar Solar Technologies Q.S.C., Qatar. At reporting date, receivables of € 103k from these transactions are unsettled (prior year € 0k).

In the previous year, Qatar Solar Technologies Q.S.C., Qatar, called in an equity contribution of US\$ 1,450k on the basis of a corresponding shareholder agreement. Payment is deferred until March 31, 2015. We refer to our comments in note 35.

The partnership Schmitz Knoth Rechtsanwälte, Bonn, — a party related to the former chairman of the Supervisory Board, Dr. Claus Recktenwald, in terms of IAS 24 — handles SolarWorld group's legal issues. Upon approval of the Supervisory Board, a total fee of € 0.4 million (prior year € 1.4 million) was rewarded for these services until his resignation on May 30, 2014.

Remuneration and share ownership of members of the Management and Supervisory Board is listed in note 45 and presented in the remuneration report of the management report.

All transactions were carried out at arm's length.

#### 44. EMPLOYEES

The average number of employees amounted to 2,701 (prior year 2,103) and falls upon the entity's areas of operations and segments as follows:

Headcount	2014	2013
Production Germany	1,751	1,031
Production U.S.	503	600
Trade	327	352
Other	120	120
Total	2,701	2,103

Per December 31, 2014, the number of employees amounted to 2,730 (prior year 2,073) and included 44 trainees (prior year 50).

#### 45. MANAGEMENT BOARD AND SUPERVISORY BOARD

For assuming their duties in both parent company and subsidiaries in 2014, the members of the Management Board received total remuneration payments of  $\leqslant$  2,276k (prior year  $\leqslant$  1,809k), which includes variable remuneration of  $\leqslant$  554k (prior year  $\leqslant$  600k).

Mr. Klebensberger's board function as Chief Operations Officer ended in February 2013. On the basis of his still ongoing contract, he received continued payment of remuneration amounting to € 285k (prior year € 346k) in 2014.

For assuming their duties in both parent company and subsidiaries in 2014, the members of the Supervisory Board received remuneration payments including reimbursements in a total amount of € 312k (prior year € 234k), each plus statutory VAT. The total includes variable remuneration of net € 0k (prior year € 0k).

Individualized disclosures regarding the remuneration of the board of directors' members are included in the entity's management report.

The appointed members of the Management Board are:

- Dr.-Ing. E. h. Frank Asbeck (Chief Executive Officer)
- Dipl.-Kfm. tech. Philipp Koecke (Chief Financial Officer)
- Dipl.-Wirtschaftsing. Frank Henn (Chief Sales Officer)
- Attorney at law Colette Rückert-Hennen (Chief Information, Brand & Personnel Officer)
- Dipl.-Ing. Jürgen Stein (Chief Product Officer, since April 1, 2014)

At reporting date, the Chief Executive Officer, Dr.-Ing. E. h. Frank Asbeck, indirectly and directly owned 20.85 percent (prior year directly 22.27 percent) of the shares in SolarWorld AG.

The members of the Supervisory Board are:

- Dr. Georg Gansen (Chairman since May 30, 2014, Deputy Chairman until that date), attorney-at-law/ corporate legal counsel of Deutsche Post AG, Bonn
- Heiner Eichermüller, Scottsdale/Arizona, United States (Deputy Chairman since May 30, 2014), freelance senior business consultant
- Dr. Khalid K. Al Hajri, Doha, Qatar, since May 30, 2014
- Faisal M. Alsuwaidi, Doha, Qatar, since May 30, 2014
- Dr. Andreas Pleßke, Herrsching am Ammersee, Germany, since May 30, 2014
- · Jürgen Wild, Vaucresson, France, since May 30, 2014
- Dr. Claus Recktenwald (Chairman until May 30, 2014), attorney-at-law and partner with the partnership Schmitz Knoth Rechtsanwälte, Bonn, resigned his position on May 30, 2014
- Marc M. Bamberger, management consultant in Wiesbaden, resigned his position on May 30, 2014.

The chairman of the Supervisory Board, Dr. Georg Gansen, does not hold office in any other boards of directors and similar supervisory bodies to be established according to law.

The deputy chairman of the Supervisory Board, Heiner Eichermüller, does not hold office in any other boards of directors and similar supervisory bodies to be established according to law.

#### 46. AUDITOR'S FEES

In 2014, total fees invoiced by the auditor of the consolidated financial statements, BDO AG Wirtschaftsprüfungsgesellschaft, Hamburg/Bonn, including reimbursement of costs, amount to:

- a) Year-end audit € 674k (prior year € 633k)
- b) Other certification services € 178k (prior year € 20k)
- c) Tax consulting € 0k (prior year € 0k)
- d) Miscellaneous services € 205k (prior year € 0k)

Furthermore, in 2014 transitory items in an amount of  $\in$  1.0 million have been recharged in the scope of the financial restructuring.

Bonn, March 17, 2015

SolarWorld AG The Management Board

#### 47. CORPORATE GOVERNANCE

In December 2014, Supervisory Board and Management Board issued the statement required by § 161 AktG, stating that, with a few exceptions, the recommendations of the "Deutscher Corporate Governance Kodex" (German Corporate Governance Code) issued on June 24, 2014, were and are complied with. Both the declaration of compliance and explanations for exceptions are published on the SolarWorld AG website 

www.solarworld.de/declaration-of-compliance.

The Manageme

**Dr.-Ing. E. h. Frank Asbeck** Chief Executive Officer (CEO)

Dipl.-Wirtschaftsing. Frank Henn

Chief Sales Officer (CSO)

Dipl.-Kfm. tech. Philipp Koecke

Chief Financial Officer (CFO)

RAin Colette Rückert-Hennen

Chief Information,

Brand & Personnel Officer (CIBPO)

Dipl.-Ing. Jürgen Stein

Chief Product Officer (CPO)

# **AUDIT OPINION**

We have audited the consolidated financial statements – comprising the statement of financial position, statement of profit and loss, statement of comprehensive income, statement of changes in equity, statement of cash flows and notes to the consolidated statements – and the group management report of SolarWorld Aktiengesellschaft, Bonn, for the period January 1, 2014 to December 31, 2014. The preparation of the consolidated financial statements and the group management report in accordance with IFRS, the additionally applicable requirements of the German commercial law (§ 315a sec. 1 HGB [Handelsgesetzbuch – German Commercial Code]) and the supplementary provisions of the articles of association are the responsibility of the company's legal representatives. Our responsibility is to express an opinion on the consolidated financial statements and group management report based on our audit.

We conducted our audit of the consolidated financial statements in accordance with § 317 HGB and the German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Those standards require that we plan and perform the audit such that misstatements materially affecting the presentation of financial position, financial performance and cash flows in the consolidated financial statements in accordance with the applicable financial reporting framework and in the group management report are detected with reasonable assurance. Knowledge of the business activities and the economic and legal environment

of the group and expectations as to possible misstatements are taken into account in the determination of audit procedures. The effectiveness of the accounting-related internal control system and the evidence supporting the disclosures in the consolidated financial statements and the group management report are examined primarily on a test basis within the framework of the audit. The audit includes the evaluation of the annual financial statements of the consolidated entities, the definition of the consolidated entity, evaluation of accounting and consolidation principles used and the significant estimates made by the legal representatives, as well as the assessment of the overall presentation of the consolidated financial statements and the group management report. We believe that our audit provides a reasonable basis for our opinion.

Our audit has not led to any reservations.

In our opinion, based on the findings of our audit, the consolidated financial statements comply with IFRS as applicable in the EU, the additionally applicable requirements of the German Commercial Code (§ 315a sec. 1 HGB) and the supplementary provisions of the articles of association and give a true and fair view of the financial position, financial performance and cash flows of the group. The group management report is consistent with the consolidated financial statements and, as a whole, provides a true and fair view of the group's position and suitably presents the opportunities and risks of future developments.

Bonn, March 17, 2015

BDO AG Wirtschaftsprüfungsgesellschaft

Lubitz

German Public Auditor

Ahrend

German Public Auditor

# RESPONSIBILITY STATEMENT

To the best of our knowledge, and in accordance with the applicable reporting principles, the consolidated financial statements 2014 give a true and fair view of the assets, liabilities, financial position and profit or loss of the group, and the group management

report 2014 includes a fair review of the development and performance of the business and the position of the group, together with a description of the principal opportunities and risks associated with the expected development of the group.

Bonn, March 17, 2015

SolarWorld AG Board of Management

Dr.-Ing. E. h. Frank Asbeck

Chief Executive Officer (CEO)

Dipl.-Wirtschaftsing. Frank Henn

Chief Sales Officer (CSO)

Dipl.-Kfm. tech. Philipp Koecke

Chief Financial Officer (CFO)

RAin Colette Rückert-Hennen

Chief Information, Brand & Personnel Officer (CIBPO) **Dipl.-Ing. Jürgen Stein**Chief Product Officer (CPO)

# SERVICE

173 GLOSSARY

**178 ACRONYMS AND ABBREVIATIONS** 

179 FINANCIAL AND EVENT CALENDAR 2015

# **GLOSSARY**

#### Α

**Active patent** – A granted patent is considered to be active so long as the maximum patent duration of 20 years has not expired and the patent is not abandoned before then.

#### R

**Bill of materials** – Detailed and exact list of all components required to manufacture a product unit

**Branding** – Strategic marketing activity intended to create a strong, effective identity for the brand and so raise the profile of a company's products

#### C

**Capital increase** – Increasing the ► <u>capital stock</u> of a stock corporation by issuing new shares

**Capital reduction** – Reduction in the ► <u>capital stock</u> of a stock corporation

**Capital stock** – Total of the par value of all stocks issued by a company

**Carbon dioxide (CO<sub>2</sub>)** – Odorless, invisible gas consisting of carbon and oxygen. The increase of its concentration in the atmosphere is caused by the use of fossil energy sources and contributes to global warming.

**Carbon Disclosure Project (CDP)** – Global cooperation between more than 750 institutional investors with investment capital of more than US\$ 92 trillion. The goal is to disclose  $ightharpoonup \underline{qas} \underline{emissions}$  by companies and their respective strategies concerning action on climate change. The CDP is the world's largest freely available emissions inventory for corporate  $ightharpoonup \underline{CO_2 emissions}$ . The ninth German CDP Report was published in 2014. SolarWorld AG has been regularly participating in this project since 2006.

**Cash flow statement** – Identification and reporting of income and expenditure generated or consumed by a company within a specific period of time from ongoing business, investment and financing activities

**Cell** – ► Solar cell

**co**, − ► Carbon dioxide

**CO<sub>2</sub> emissions** − ► <u>Greenhouse gas emissions</u>

**CO**<sub>2</sub>-equivalent (**CO**<sub>2eq</sub>) – Contribution of a greenhouse gas to the greenhouse effect. The greenhouse gas potential of  $ightharpoonup \underline{carbon}$   $\underline{dioxide}$  ( $\underline{CO}_2$ ) is used as a comparative value to describe the global warming effect of different greenhouse gases uniformly over a certain period of time.

**Compliance** – Observing laws, regulations, internal and external guidelines and codes which are followed on a voluntary basis. The goal is to avoid illegal and/or illegitimate activities.

**Corporate culture** – The fundamental beliefs, values and attitudes shared by the members of a company concerning the purpose of the company. Corporate culture expresses, for example, the value notions that management holds and the way they deal with one another and with employees.

**Corporate Governance** → <u>German Corporate Governance Code</u> **Covenants** – Agreements that, for example, require a borrower to achieve defined financial ratios

#### D ....

**Debt-to-equity swap** — A transaction in which a company's liabilities are converted into shares in the company

**Declaration of compliance** – Declaration by the Management Board and the Supervisory Board pursuant to § 161 German Stock Corporation Act (AktG) stating the extent to which they follow the recommendations of the • German Corporate Governance Code

**Deferred taxes** – Result from differences in tax burdens where taxable profit differs from earnings in the commercial-law financial statements due to tax rules

**Depreciation** – The annually increasing decline in the value of fixed assets and equipment is taken into account by systematically setting off the original cost against tax over the years of their use. Depreciation is treated as an expense for accounting purposes.

**Direct material** – Material that is incorporated directly into the product cf. ► *indirect material* 

**Dividend** – Portion of the earnings of a stock corporation distributed to the shareholders on an annual basis. The distribution of these earnings is resolved by the Annual General Meeting.

#### Þ

**Earnings per share** – Group earnings divided by the weighted number of stocks

**EBIT** – Earnings Before Interest and Taxes. Result after deduction of all operating costs. EBIT is usually used to evaluate a company's earnings position, particularly for international comparisons as it does not include national taxes.

**EBITDA** – Earnings Before Interest, Taxes, Depreciation (on property, plant and equipment) and Amortization (of ► <u>intangible assets</u>). This indicator facilitates international comparisons as it does not include national taxes.

#### **EEG** – ► Renewable Energy Sources Act

**Einstein Award** – Award presented by SolarWorld since 2005 to persons who have rendered outstanding services in the area of solar energy. In addition, young scientists have been awarded the SolarWorld Junior Einstein Award since 2006 for their scientific work in specialist areas relating to • *photovoltaics*.

**Employer branding** – Activities of a company to create a brand image as an attractive employer both internally and externally

Energy payback time/CO<sub>2eq</sub> payback time—The amount of time it takes the ► <u>solar power system</u> to produce as much energy as was used to manufacture it. Accordingly, the CO<sub>2</sub> payback time refers to the time it takes to compensate for the greenhouse gases that were emitted during manufacturing.

**Equity** − Balance sheet item consisting of the ► <u>capital stock</u>, reserves and accumulated results that are available to the company to be used for investments (for example)

**Equity ratio**—Measures ► <u>equity</u> as a proportion of the total ► <u>capital</u> <u>stock</u>. Used to assess the creditworthiness of a company

**ERP system**—Enterprise Resource Planning System. Application software to support all business processes running within an enterprise. Using various units for different functional areas (e.g. sales, controlling, HR), enterprise resource planning is implemented with the aid of a common database.

**EU ProSun** – Joint initiative of companies in the European solar industry. The mission of EU ProSun is to promote the development of solar energy as a sustainable energy source. SolarWorld is one of the backers of EU Prosun.

#### F

Fair disclosure principle — Equal treatment of all shareholders and other stakeholder groups in the disclosure of information

Feed-in tariff — In Germany, for example, utilities are obliged to buy electricity from renewable sources and pay for it at a current rate. This is regulated by the ► Renewable Energy Sources Act.

#### G

**German Corporate Governance Code (GCGC)** – The code comprises the rules applying to corporate management and supervision in Germany. Furthermore, it provides recommendations and suggestions. Thus, the GCGC is to promote the trust of international and national investors, of customers, employees and the public as stakeholders in the management of German companies.

**Gigawatt (GW)** – One gigawatt equals one billion (1,000,000,000) ▶ watts

**Global Compact (GC)**—Also "United Nations Global Compact"; is concluded between companies and the UN with the objective of making globalization more ecologically and socially compatible

**Global reporting initiative (GRI)** – Global multi-stakeholder network of experts to define a global standard for the preparation of sustainability reports. The GRI reporting framework serves to ensure systematic presentation of the economic, ecological and social performance of companies in order to facilitate comparisons between companies and a transparent presentation of the development over time.

Greenhouse gas emissions – Greenhouse gases interfere with the natural balance of the atmosphere, which may lead to climate change. The most important man-made greenhouse gases are ► <u>carbon dioxide (CO₂)</u> from the combustion of fossil energy sources (about 60 percent) and methane from agriculture and mass animal husbandry (about 20 percent).

**Grid parity** – Parity between the price of solar-produced power and domestic electricity prices. This is achieved when the purchase price of solar power is the same as normal domestic electricity from the wall socket.

#### .....

**Impairment** – Adjustment item to cover the impairment of a fixed or current asset item carried under assets in the balance sheet **Income statement** – Period-related comparison of the incomes and expenditures of a company

**Indirect material** – Material or services that are not required for directly manufacturing a product. Cf. ► *direct material* 

Ingot - ► solar ingot

**Intangible assets** – Include concessions, commercial property rights, licenses, corporate goodwill, patents etc.

International accounting standards (IAS) — Collection of uniform international standards and interpretations in which the rules of external reporting for capital-market-oriented companies are listed International accounting standards board (IASB) — Internationally staffed independent body of accounting experts that develops the ► International Financial Reporting Standards (IFRS) and revises them as and when required

International financial reporting interpretations committee (IFRIC) — Discusses current accounting issues that are differently or incorrectly treated because of insufficient guidance concerning the IAS and IFRS standards. Furthermore, it deals with new sets of conditions that have not yet been covered by IAS/IFRS.

**International financial reporting standards (IFRS)** – Collection of internationally applicable standards and their official interpretations that lists the rules guiding the external reporting of capital-market-oriented companies

Inverter – Converts the direct current generated by ► <u>solar modules</u> into the alternating current required by the grid. It also monitors the grid connection.

**ISO 14001**—International environmental management standard that lays down requirements to be met by an environmental management system

**ISO 9001** – International standard on quality management that determines the generally accepted requirements to be met by a ► quality management system

#### K

Kilowatt (kW) - One kilowatt equals 1,000 watts

**Large-scale project** − Large ► *solar power system,* mostly ground-mounted installations. Primarily, these are plants with a rated output of more than 100 kW.

**Linear performance guarantee** – Warranty under which the guaranteed performance declines by a certain percentage per year and is not reduced step by step

**Local content rule** – Regulations designed to ensure that a certain proportion of an end product is manufactured domestically

**Lock-up period** – Designates a period of time, agreed between the issuer and shareholder, in which shares acquired by the shareholder may not be sold

#### M

Margin – Difference or market margin between producer (production) price and sales (consumer) price of a tradable product. The margin allows the overhead costs included in production and distribution to be covered.

**Market capitalization** – Valuation of a company at the stock exchange. Measurement referring to the number of stocks times the stock price

**Megawatt (MW)** – Equals one million (1,000,000) watts **MENA** – Acronym for the Middle East & North Africa region. It extends from Morocco in the west to eastern Pakistan.

**Module** - ► <u>Solar m</u>odule

Monocrystalline — Conditions prevailing during crystallization result in the solidification of the ► <u>solar-grade silicon</u> in a single large and homogeneous cylindrical crystal. Cf. ► <u>multicrystalline</u>

Multicrystalline – The conditions prevailing during crystallization cause the ► <u>solar-grade silicon</u> to solidify into a silicon block consisting of several small crystals which overall does not show a completely homogeneous arrangement of atoms. Cf. ► monocrystalline

#### N

**Natural hedging** – Export-oriented companies can hedge themselves against exchange rate risks by site selection, purchasing policy and/or determination of contractual currency.

#### 0

Off-Grid – Solar power systems not directly connected to the power grid. The power generated is consumed directly or stored locally. ÖKODAX – Represents the performance of the ten most liquid German companies in the renewable energy sector and, along with the DAX and TecDAX, belongs to the ► Prime Standard. The Solar-World stock has been listed in the index since its launch in 2007. On-Grid – Solar power systems connected to the regional power grid. The operator of the system can feed electricity into the grid when electricity production is high (strong solar radiation) and can also take electricity from the grid if necessary.

#### 1

PERC (Passivated Emitter Rear Cell) — A passivated emitter and passivated rear of the ► <u>solar cell</u> reduce optical and electrical losses. In conventional ► <u>solar cells</u>, the back of the cell is screen-printed with an aluminum coating, which acts as a contact. But in PERC cells, the rear is given a dielectric coating (e.g. silicon dioxide). The contacts for carrying electricity are formed individually by laser. PERC technology increases the efficiency of the ► <u>solar cell</u>. Apart from higher output, PERC also improves the cell's low-light performance, enabling—depending on the location—an additional yield of around 1 percent

**Photovoltaics** – Describes the direct conversion of solar radiation into electrical energy

**Polysilicon** − **►** *solar-grade silicon* 

**Primary sources of energy** – Naturally occurring energy sources such as the sun, wind, water, coal, crude oil, natural gas, and nuclear fuels, which have to be converted (e. g. in power plants) to generate usable energy for end consumers

**Prime Standard** – Legally regulated listing segment of the Frankfurt Stock Exchange for companies meeting particularly stringent international transparency standards. Precondition for admission to DAX, MDAX, TecDAX or SDAX

**Provisions** – Balance sheet items in which amounts are accrued for uncertain future liabilities that can, however, already be estimated at the present time (e.g. pension payments, taxes)

#### Q

**Quality management** – Application of measures serving to improve products, processes or services of any kind. It is considered part of functional management, aiming to enhance the efficiency of a transaction or workflow.

#### R

Renewable Energy Sources Act – Law promoting renewable energies in Germany (Erneuerbare-Energien-Gesetz, EEG). It regulates the preferred purchase, transmission and compensation of electricity from renewable sources. ► feed-in tariffs are fixed for twenty years.

RISE – Describes the four-dimensional corporate mission of Solar-World AG. An acronym for Responsibility, Innovation, Sustainability, Engagement. These provide guidance for all HR strategy measures.

Risk management – Procedure for the identification, measurement and avoidance/reduction of risks or the implementation of corresponding measures

#### S

SAP – Name of software manufacturer, with headquarters in Baden-Württemberg, Germany. Main product is a ► <u>ERP system</u>.

Self-consumption – Self-generated power can be consumed directly, the rest can be fed into the public grid. In both cases, the ► <u>feed-in tariff</u> for solar power is guaranteed by the German state for 20 years through the ► <u>Renewable Energy Sources Act</u>. The more power is used straight from the roof, the higher the return on investment from a solar array will be. The self-consumed rate can be boosted to more than 90 percent with intelligent products for consumption control. People who produce their own power are more independent of increasing electricity prices. At the same time, the strain on the grid is reduced since solar power generation and consumption occur together in the same building.

Shop-floor management – Effective approach aimed at continuous process improvements at the site of value creation through collaboration between employees and executives directly in production Short squeeze – Situation where the price of a stock increases rapidly due to lack of supply and excess of demand for the stock Silicon → solar-grade silicon

**Solar2World** – In this program, SolarWorld supports aid projects in developing countries with ► <u>off-grid</u> solar power systems that promote sustainable economic development.

Solar cell – Solar cells interconnected in a ► solar module allow sunlight to be turned into electricity via the photovoltaic effect. The cell consists of two layers that are deliberately contaminated (doped). At the interface of the two layers, an electric field is formed. When a light beam hits an electron in the upper layer, it can move freely and migrates to the outside. This creates a voltage that can be tapped via external contacts.

Solar ingot – Block made from a semiconductor material such as silicon, with either a ► monocrystalline or ► multicrystalline structure Solar module – Consists of interconnected ► solar cells, which are sealed with silicone behind glass in an aluminium frame to make the module weather-resistant

**Solar power system/solar power plant** – Complete system of ► <u>solar module</u>s, racking system etc. generating direct current through the photovoltaic effect; an ► <u>inverter</u> converts the power into alternating current before it is fed into the grid. More and more solar power systems comprise components that facilitate ► <u>self-consumption</u>.

**Solar wafer**—Thin slice made of ightharpoonup solar qrade silicon, used to produce ightharpoonup solar cells. They can be either ightharpoonup monocrystalline or ightharpoonup multi-crystalline.

**Solar-grade silicon** – Silicon crystals with a high degree of purity sufficient for solar applications. The chemical element silicon is a semiconductor that forms crystals with a stable diamond structure. For use in the solar industry, the raw silicon has to be purified into solar-grade silicon and is cast into blocks for cutting into ► *solar wafers*.

**Stakeholder** – Groups or individuals who may influence the goals achieved by a company or who are affected by these goals. The key stakeholder groups include employees, shareholders, investors, suppliers, customers, consumers, authorities and non-governmental organizations.

**Supply chain management** – Involves planning and managing all tasks across the entire value-creation process, from supplier selection and procurement to logistics

**Supply chain** – Network of organizations with involvement upstream and downstream of various value creation processes and activities

**Sustainability** – 1. Characteristic of a system that continues to exist in the long term; 2. Scientific concept concerning the objective limits to environmental exploitation; 3. A concept in ethical standards at the core of which is the issue of justice and balance

Т

"Take or pay" obligation – Contractual "payment guarantee" agreed between supplier and buyer which requires the buyer to pay a fixed amount regardless of whether the agreed quantity is taken or not. Consequently, if the agreed minimum quantity is not purchased, the payment is still due.



Value chain – Term used to designate the entirety of all production processes in which value is added to a product. The stages of Solar World's value chain range from ► polysilicon to ► solar modules.



Wafer - ► solar wafer

Wafering — The step in the ► <u>solar wafer</u> manufacturing process in which ► <u>solar ingots</u> are sawn into bars and then into thin slices (called ► <u>wafers</u>)

**Watt** – International measuring unit for power output, named after James Watt, standard sign "W"

**Watt-peak (Wp)** – Unit of measurement commonly used in ► <u>photovoltaics</u> to specify the electrical power output of ► <u>solar cells</u> or ► <u>solar modules</u>

**Working capital** – Inventories plus trade receivables minus trade payables. It provides information about the company's financial stability and flexibility.

# **ACRONYMS AND ABBREVIATIONS**

Δ	ICIN International Cognition Identification Number
	ISIN – International Securities Identification Number
AG – German Stock Corporation	ISO – International Organization for Standardization
<b>AktG</b> – German Stock Corporation Act	IT – Information technology
·	ITC – (U.S.) International Trade Commission
<b>CEO</b> – Chief Executive Officer	K
<b>CFO</b> – Chief Financial Officer	<b>k€</b> – Thousand €
CIBPO – Chief Information, Brand and Personnel Officer	K.K – Kabushiki kaisha (Japanese Stock Corporation)
<b>CO<sub>2eq</sub></b> – CO <sub>2</sub> equivalent	<b>kW</b> – Kilowatt
COO – Chief Operating Officer	<b>kWh</b> – Kilowatt-hour
CPO – Chief Product Officer	
<b>CSO</b> – Chief Sales Officer	<u> </u>
	LLC – Limited Liability Company
D	<b>LP</b> – Limited Partnership
<b>D&amp;O</b> – Directors and Officers	Ltd. – Limited Company
E	M
EBIT – Earnings Before Interest and Taxes	<b>MW</b> – Megawatt
EBITDA – Earnings Before Interest, Taxes, Depreciation	
and Amortization	Q
<b>EEG</b> – German Renewable Energy Sources Act	Q.S.C. – Qatari Shareholding Company
E. h. – Honorary degree	
ERP – Enterprise resource planning	P
	<b>PERC</b> – Passivated Emitter and Rear Cell
G	PTE Ltd. – Private Limited
<b>GbR</b> – Company under civil law	
GCGC – German Corporate Governance Code	R
GmbH – Company with limited liability	<b>R&amp;D</b> – Research and development
<b>GW</b> – Gigawatt	<b>RoCE</b> – Return on capital employed
<b>GWh</b> – Gigawatt-hour	
	S
H	<b>S.à r.l.</b> – Société à responsabilité limiteé
HGB – German Commercial Code	(French company with limited liability)
	<b>S.P.C.</b> – Segregated Portfolio Company
IAS – International Accounting Standards	V
IASB — International Accounting Standards Board	VorstAG – German Act on the Appropriateness of Management
IFRIC – International Financial Reporting Interpretations Committee	Board Remuneration
IFRS – International Financial Reporting Standards	
IfW – Institute for the World Economy	W

**WpHG** – German Securities Trading Act

Inc. - Incorporated

# FINANCIAL AND EVENT CALENDAR 2015

26 MARCH 2015	Publication of Annual Group Report 2014 www.solarworld.de/financial-reports Press Conference on Financial Statements, Analyst Conference on Financial Statements
27 MARCH 2015	►►► International Analyst Conference Call
12-13 MAY 2015	AUW- African Utility Week, Cape Town (South Africa) www.african-utility-week.de
15 MAY 2015	Publication of Consolidated Interim Report 1st quarter 2015 www.solarworld.de/financial-reports
02 JUNE 2015	Annual General Meeting, Bonn (Germany)
10–12 JUNE 2015	Intersolar Europe 2015, Munich (Germany) www.intersolar.de
11–14 JUNE 2015	<b>BBC Good Food Show Summer, Birmingham (United Kingdom)</b> www.bbcgoodfoodshowsummer.com
14-16 JULY 2015	Intersolar North America, San Francisco (U.S) www.intersolar.us
29–31 JULY 2015	PV Japan, Tokyo (Japan)
14 AUGUST 2015	Publication of Consolidated Interim Report 1st half 2015 www.solarworld.de/financial-reports
15-17 SEPTEMBER 2015	Solar Power International, Anaheim (U.S) www.solarpowerinternational.com
07-08 OCTOBER 2015	www.all-energy.com.au
13 NOVEMBER 2015	Publication of Consolidated Interim Report 3rd quarter 2015 www.solarworld.de/financial-reports

# SUSTAINABILITY IN DETAIL 2014

#### **183 COMPANY PROFILE AND REPORT CONTENTS**

- 183 Sustainability lies at the core of all our business activities
- 183 Reporting
- 184 Management approach
- 191 Stakeholders
- 195 Engagement in networks and initiatives
- 198 Awards

#### 201 PERFORMANCE INDICATORS

- 201 Economic perspective
- 206 Environmental protection
- 220 Total workforce
- 250 Responsibility for customers and products
- 252 Compliance
- 254 KPIs & KPNs for ESG
- 257 Global Reporting Initiative (categorization and index)

#### **264 FURTHER INFORMATION**

- 264 Communication on progress to the UN Global Compact
- 268 Appendix: Materiality Analysis Assessment of all aspects and themes
- 270 Confirmation
- 271 Abbreviations Sustainablity

# COMPANY PROFILE AND REPORT CONTENTS

# SUSTAINABILITY LIES AT THE CORE OF ALL OUR BUSINESS ACTIVITIES

#### G4-2

SolarWorld is a "Changemaker" and measures success according to sustainability objectives. We have been a member of the Changemaker initiative of the Utopia Foundation since February 2014. Utopia's goal is that millions of consumers change their consumption behavior. That's why Utopia works together with companies pushing for economic change towards sustainability. The SolarWorld Changemaker Manifesto is a voluntary commitment to sustainable corporate governance and at the same time, SolarWorld's groupwide sustainability strategy. Because SolarWorld stands for real values, we want to be measured according to ten commitments geared toward action, all of which are supported by concrete, verifiable targets and measures. The Changemaker Manifesto was signed by the entire Management Board of SolarWorld and is thus, in addition to the SolarWorld Vision, a personal commitment underlining the significance of sustainable activities for the SolarWorld group. Annual progress reports provide information about developments. We are making the Changemaker Manifesto including progress reports available on the Utopia website ► www.utopia.de as well as on our website ► www.solarworld.de/sustainability.

We have been reporting within the framework of the Global Reporting Initiative (GRI) since our 2007 Annual Group Report. This makes the present report the eighth in a row. SolarWorld continues to report comprehensively ("In Accordance – Comprehensive") and has an audit

performed by on the central sections BDO AG Wirtschaftsprüfungsgesellschaft. For the sake of integrated reporting, sustainability issues that have a direct or indirect influence on our business success are set out in the management report. Further information that is relevant to individual stakeholder groups is disclosed in this annex, "Sustainability in detail". The most important aspects and topics ► Reporting – p. 184 are described in the management approach ► Management approach -p. 187. The goal of the report is to spell out the role of the SolarWorld group in society, as well as impacts on the economy, environment and people. A benchmarking with competitors on performance indicators is not yet possible, because there is not yet enough comparable data available. Since this is very unlikely to change in the short term, we will attempt to find suitable non-industry companies for comparison in the future.

#### ► Management approach – p. 187

There is no analysis yet available showing the main impacts on stakeholders. At present, the SolarWorld group faces the challenge of asserting itself in a market with enormous price pressure, whereby the share of customers in the solar market with a clear sustainability orientation is still relatively small. We anticipate that our positioning as a company that acts responsibly will have a positive impact on our reputation and quality brand, and yield competitive advantages in the longer term. For the time being, the increasing scarcity of fossil fuels and continuing climate change are creating more opportunities than risks for

solar energy because it offers solutions to these challenges. Additional risks arise primarily from the effects of production on the environment, health and safety. We believe that these risks tend to be low compared with other industries, although we expect that as a result of global purchasing, risks across all sustainability dimensions will increasingly arise from the value chain. Detailed information on the

most important opportunities and risks, with a special focus on the financial performance of the organization, is set out in the management report. ► <u>Group management report forecast – p.065</u> ► <u>Climate change: Opportunities and risks – p.203</u> Challenges and opportunities are identified as part of our opportunity and risk management system. ► <u>Opportunity and risk management system – p.067</u>

#### **REPORTING**

#### G4-18+48

The process of determining the report's contents must take the four basic principles of the Global Reporting Initiative (GRI) into account: Materiality, engagement of stakeholders, sustainability context and completeness. Based on the materiality analysis, Sustainability Management produces the draft report, which is examined by the Management Board and Supervisory Board. Finally, the analysis is discussed with the Management Board, the Board can ask for changes and approves the report.

The totality of aspects and issues considered comprises those of the GRI, the core topics reported on in the management report, the principles of the UN Global Compact, the key performance indicators and narratives of the EFFAS/DVFA, as well as topics raised by stakeholders, if applicable. To determine the most important aspects and issues out of these, we evaluate the topics from the company perspective (by consulting the Management Board) as well as from the perspective of individual stakeholder groups Stakeholder — p. 192. Evaluations for each stakeholder group are based on our corporate knowledge that we accrue through continuous contact with our stakeholders as part of our corporate activity. Here we consult contact persons in the company who stand in particularly close contact with specific stakeholder groups. Furthermore, we also

carried out a survey among members of our sustainability expert pool, to take first-hand stakeholders' opinions into account. For cost reasons, this survey has only been possible on a limited scale so far, but it is expanding from year to year. Scores are calculated from the probability of change (0–100 percent) and its relevance (on a scale of 1–10). For all key aspects and issues, an assessment was made as to where impacts are primarily felt: Inside or outside of the company.

SolarWorld had its 2013 reporting evaluated by "future e.V. – verantwortung unternehmen". One of their suggestions was to implement a simpler and more transparent definition of sustainability issues. So we adjusted our method: We no longer use different weightings. Instead, the evaluations from all stakeholder groups are taken into account equally in finding the average. Stakeholders who are unable to express their needs – e.g. future generations and the ecosystem – are no longer listed as a separate stakeholder group. As an alternative, we attempt to represent these views by including scientists in our expert pool. Furthermore, rather than define an absolute value to distinguish material and non-material topics, we include the topics with the ten highest scores ("Top 10") from the company and stakeholder perspectives.

G4-19-21
MATERIAL ASPECTS AND TOPICS

Material within the entire organization  Material within the entire organization	Globally material for: all stakeholder groups, except NGOs, press, governments and authorities Globally material for: all stakeholder groups,
Material within the entire organization	Globally material for: all stakeholder groups.
	except NGOs, press, governments and authorities, local population
Material within the entire organization	Globally material for: all stakeholder groups, except NGOs, press, government and authorities
Material within the entire organization	Globally material for: all stakeholder groups, except NGOs, interested public, press, competitors, governments and authorities, associations and industrial trading groups
Material within the entire organization	Globally material for: suppliers, employees, customers, competitors and expert pool
Material within the entire organization	Globally material for: suppliers, shareholders and investors, analysts and brokers, employees, customers, press, employees' representatives and associations, expert pool
Material within the entire organization, in particular in Sales	Globally material for: suppliers, shareholders and investors, employees, customers, expert pool
Material within the entire organization	Globally material for: employees, governments and authorities, employees' representatives and associations, local population
Material within the entire organization	Globally material for: shareholders and investors, banks and creditors, analysts and brokers, employees, customers, press, competitors, works councils, expert pool
Material within the entire organization	Globally material for: suppliers, shareholders and investors, banks and creditors, analysts and brokers, employees, customers, press, employees' representatives and associations, expert pool
	Material within the entire organization  Material within the entire organization  Material within the entire organization  Material within the entire organization, in particular in Sales  Material within the entire organization  Material within the entire organization

T 47

All results from the analysis are presented at the end of the report. ightharpoonup Appendix: Materiality analysis – Assessment of all aspects and topics – p. 268

#### **MATERIALITY MATRIX: ARRAY OF ASPECTS AND TOPICS**



Evaluation by SolarWorld group ►

\_\_ "Top 10"

G 27

### G4-17+22+23 REPORTING SCOPE AND BOUNDARY

As a general rule, the reporting scope and boundary includes all the organizational units that we control and significantly influence, i.e. all SolarWorld group companies. • 2.3.3 Group structure – p. 126 Upstream and downstream stages of the value chain outside the SolarWorld group are included only to a limited degree, due to lack of control and influence. The strategic information in this report furthermore relates to the joint venture Qatar Solar Technologies Q.S.C. (QST).

In terms of performance indicators, subsidiaries and leased facilities are generally included. Joint ventures are only included if we exert operational control and significant strategic influence with regard to a specific indicator, which is not currently the case with our joint ventures. According to the Global Reporting Initiative, SolarWorld exerts control if SolarWorld governs the financial and operating policies of an enterprise so as to obtain benefits from its activities. Significant influence, for the Global Reporting Initiative, is when SolarWorld has the power to participate in the financial and operating policy decisions of the entity but does not exert control over those policies.

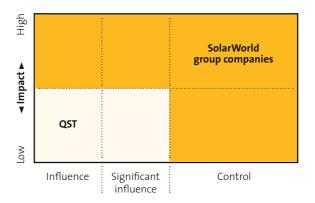
Outsourced operations (such as logistics services) are not included, unless it is a performance indicator with a special affect on the value chain. Any departures from these reporting boundaries are indicated for each aspect of the Global Reporting Initiative. The results are collected and interpreted to be as representative as possible for the SolarWorld group. Any particularities are highlighted per indicator.

As a general rule, data is collected through the SolarWorld group software systems (e.g. Navision, Targit) and each department compiles their own data. Most of the ecological and social data is collected through a SharePoint-Solution. Individual pieces of information are collected through interviews and e-mail contacts. The calculation basis and estimations are each described in the performance indicators.

This report is based on standard G4 of the Global Reporting Initiative. Comparability with previous years is ensured through continuity in reporting boundaries and indicators. Where the data or collection method of previous years could be improved, the information has been updated. This is stated in the explanatory notes on the indicators. Compared with the previous year, there were no significant changes.

The error margin (i.e. potential inaccuracies in measurements or estimates) in our quantitative data is not yet analyzed due to cost reasons. It will be stated in the explanatory notes if it is known to us that the informative value is limited. So far it has not been possible to calculate the quantitative statistical error tolerance. If significant errors are discovered, they are corrected and commented on.

#### REPORTING BOUNDARY



G 28

#### G4-33 CONFIRMATION BY THIRD PARTY

The present report (sections "Company profile and report contents" as well as "Performance indicators") was subjected to audit inspection by BDO AG Wirtschaftsprüfungsgesellschaft, in accordance with the Generally Accepted Assurance Principles for the Audit or Review of Reports on Sustainability Issues established by the Institute of Public Auditors in Germany (IDW). ► Confirmation – p. 270 This standard (PS 821) includes and exceeds the standards contained in ISAE 3000.

#### **MANAGEMENT APPROACH**

#### G4-DMA, G4-14+46+47

This year's materiality analysis yielded only economic topics. We did not carry out a separate analysis, review and evaluation of impacts on stakeholder groups, since in all cases economic success is the focus of interest, and the impacts on stakeholders are of the classic economic type, as described below. This supports our decision to include information on sustainability — with regard to the economic impacts — in the existing sections of the management report.

Based on the corporate strategy, the Management Board defines the essential features of the risk policy and manages the company accordingly. Global Opportunity and Risk Management reporting to the Management Board is done monthly, as well as immediately in case of very important effects. In turn, the Management Board is responsible for risk reporting to the Supervisory Board. Taking into account the acceptable overall risk level, the Management Board assesses all options available to the company to counteract the risks identified as being a threat to the company's survival. The Supervisory Board is involved in an advisory capacity in all decisions concerning fundamental structural measures. Materiality limits are assessed at least annually (at the start of a fiscal year) for appropriateness and, if required, adapted to changed conditions or requirements. This assessment is performed at the local level by the local risk manager in coordination with the management of the

subsidiary and in consultation with the global risk manager, as well as at group level by the global risk manager in consultation with the Management Board.  $\triangleright$  Opportunity and risk management system – p. 067

In general, our management approach aims in the first instance to identify and assess opportunities and risks. Next, measures are defined to counteract negative impacts, i.e. to eliminate or minimize them. In addition, measures are defined to promote positive effects resulting from opportunities. Risks are — at acceptable cost — avoided, reduced, insured against or deliberately taken.

Especially for SolarWorld as a sustainably positioned company, ecological and social issues offer a chance for the company to differentiate itself from competitors and, in accordance with the precautionary principle, commit early to sustainable solutions. The precautionary principle states: If there is any danger of serious or irreversible damage, uncertainties in scientific assessment should not serve as a reason for postponing cost-effective measures to prevent environmental damages and health impairment until a later date. We recognize an orientation to lifestyles of health and sustainability (LOHAS) in occasional cases in the customer base, cost aspects continue to be the dominating drivers in our customers' decision making. We counter this situation by focussing on cost-reducing projects without neglecting

sustainability. The precautionary principle has been institutionalized in our company through the integrated management system (quality, health, safety and environmental management system) as well as the Compliance Management System.

From the company's point of view, the development of the solar market clearly stands out as being material, and this topic is highly significant from the stakeholder perspective, too. Solar market trends have a direct impact on demand, and therefore have a strong influence on the current and future success of the business. The management approach aims to shape these general conditions: the key factors are strategic market development in sales and marketing, product development for the respective markets and customer groups, and political influence exerted by the group. Overall, however, the group's influence on solar market trends is limited. • The solar power market – p. 034

Stakeholders rate the business forecasting and development of economic indicators as being particularly important. One reason for this is likely to be the group's tight economic situation. These aspects are also closely related to the current and future success of the business. The management report provides extensive information on the management approach that is being pursued. ► <u>Corporate management and control − p. 026</u>

Investments by the group are another topic which is important to stakeholders. Investments are closely linked to strategic development and production growth, which in turn have a substantial influence on current and future business success. Via increased production volumes, internal benchmarking and synergy utilization, the management approach is aimed at enhancing the efficiency of processes and technologies, and reducing costs per production unit.

► Production – p. 042 ► Innovation report – p. 045

General economic factors are an important aspect, in the company's view, since they affect consumption and investment. The group has even less scope for influencing these factors than it does for solar market trends. The management approach therefore aims to exploit opportunities and hedge against risks. ► Opportunity and risk management system − p. 067

Innovation is rated equally important from both the company and stakeholder perspectives. Innovations can impact on process and technology efficiency and product quality, or open up new possibilities for generating and utilizing solar power. The management approach is therefore aimed primarily at internal benchmarking, exploiting synergies in production, and improving further on the product creation process in respect of market orientation and speed (timeto-market). Innovation report – p. 045

From the company's point of view, market presence and relationships with employees have an equal priority. With regard to market presence, the management approach ensures that we are reachable in all markets, and depending on market volumes and the need for support, are represented locally either via local partners, or via contact offices, or via subsidiaries. Trade – p. 037 With regard to relationships with employees, the management approach aims to establish conditions so that measures from the restructuring program can be implemented, and to strengthen employee retention. As part of the Change Program, it is important to recognize and respond to employees' fears arising in connection with major changes, and to empower executives to deal with resistance that occurs as a result.

► Employees – p. 052

For stakeholders, SolarWorld's products and services are also important because they affect stakeholders either directly (through their use, or through business relationships), or indirectly. The management approach aims to differentiate our offering from the competition in terms of quality, performance and aesthetics. High-performance solar power systems, innovative storage technologies and an intelligent energy management system should enable customers to reduce their electricity costs. Frade – p. 037

Concrete opportunities conclude our list of material topics. While not rated particularly highly by either the company or stakeholders, this aspect at least attains a relatively high average score from both perspectives. The management approach is based on discussions within the Management Board, which take place weekly to identify possible opportunities and see if they are still current. ► Opportunity and risk management system − p. 067 ► Opportunity report − p. 081

The effectiveness of the management approach is generally measured against agreed goals and derived sub-goals. ► Economic position 2014 – p. 055 ► Engagement for the Environment – p. 049 ► Sustainability lies at the core of our business activities – p. 183 The management approach is assessed via regular monitoring, on a weekly to yearly basis depending on the indicator, and particularly also in connection with global change projects, as well as via the supervisory function of the Supervisory Board and Annual General Meeting.

#### G4-40+41+43 SUPERVISORY BODIES

Members of the Management Board are chosen with the aim of bringing together the necessary technical expertise and the necessary management experience for core issues in the SolarWorld group. The Chief Executive Officer, **Dr.-Ing. E. h. Frank Asbeck**, holds a degree in agricultural engineering and an honorary doctorate from the Faculty of Chemistry and Physics of TU Bergakademie Freiberg. He was involved in development projects in Africa before setting up SolarWorld AG. He is a founding member of the Green Party (Bündnis 90/Die Grünen). **Frank Henn (Dipl.-Wirtschaftsing.)** draws on experience in sales in multinational companies. He has been Chief Sales Officer of SolarWorld AG since 2004.

Philipp Koecke (Dipl.-Kfm. tech.) joined SolarWorld AG after working in the finance and banking sector. He has been SolarWorld AG's Chief Financial Officer since 2003. Colette Rückert-Hennen (attorney) was a lawyer before working in tourism for 20 years. She has extensive experience in international management and has been Chief Officer responsible for Brand and People since 2011 and for Information Technology since spring 2013. Jürgen Stein (Dipl.-Ing.) worked in the production environment and international sales before switching to purchasing some 10 years ago. Stein has extensive experience in international management and joined SolarWorld in 2011. Since 2013, he has been a member of the Management Board of SolarWorld AG with responsibility for product management, product development, quality management, purchasing and supply chain management.

There has been a high degree of continuity in the composition of the Management Board since the company's founding. These are not managers with short-term appointments, and this serves to counteract any tendency in corporate management toward making fast profits. For instance, the CEO is also the company's founder and major shareholder. ► Remuneration – p. 247 There are no cross-holdings, there are no controlling shareholders, and the relationships to related companies have already been presented. ► Reporting scope and boundary – p. 186

Members of the Supervisory Board are elected by the Annual General Meeting. The Supervisory Board comprises Chairman Dr. Georg Gansen and Supervisory Board members Heiner Eichermüller, Dr. Khalid Klefeekh Al Hajri, Faisal M. Alsuwaidi, Dr. Andreas Pleßke and Jürgen Wild. Dr. Georg Gansen is appointed until the conclusion of the Annual General Meeting which decides on the approval of the Supervisory Board's actions and the Management Board's actions for the fiscal year ending December 31, 2017. The other Supervisory Board members are appointed until the conclusion of the Annual General Meeting which decides on the approval of the Supervisory Board's actions and the Management Board's actions for the fiscal year ending December 31, 2018. Dr. Georg Gansen is an attorney-at-law and corporate legal counsel at Deutsche Post AG located in Bonn. Heiner Eichermüller is Deputy Chairman of the Supervisory Board and a freelance business consultant in Scottsdale/Arizona, United States. Dr. Khalid Klefeekh Al Hajri is CEO of Qatar Solar Technologies Q.S.C. in Doha, Qatar, as well as Deputy Chairman and Managing Director of Qatar Solar S.P.C. in Doha, Qatar. Faisal M. Alsuwaidi is President of Research and Development at the Qatar Foundation for Education, Science and Community Development in Doha, Qatar. Dr. Andreas Pleßke is an attorney-at-law and restructuring consultant in Herrsching am Ammersee, Germany. Jürgen Wild is a freelance business consultant in Vaucresson, France. Dr. Andreas Pleßke is at the same time Chairman of the Supervisory Board of m.a.x. Informationstechnologie AG, Munich, Chairman of the Supervisory Board of smartOne Consulting AG, Berg/Starnberger See, and member of the Supervisory Board of Tom Tailor AG, Hamburg, Germany. Jürgen Wild is at the same time a member of the Supervisory Board of SAG Gruppe GmbH, Langen, Germany. Details on the independency of the Supervisory Board are disclosed in the Corporate Governance Report. ► Corporate Governance Report – Independence – p. 095 No Supervisory Board member is more than 68 years old.

The Management Board and the Supervisory Board are responsible to further their training on sustainability.

# G4-35-37+42+44+45+49+50 MANAGEMENT, ASSESSMENT AND MONITORING OF SUSTAINABILITY PERFORMANCE AND COMPLIANCE

The entire Management Board commits itself to sustainability (SolarWorld Changemaker Manifesto) and compliance (SolarWorld Code of Conduct). In particular, these two topics are the responsibility of the Chief Information, Brand & Personnel Officer, Colette Rückert-Hennen. The Global Manager Sustainability, Dr. Felicia Müller-Pelzer, reports to her. At the same time, she is also Global Compliance Officer and in this function autonomous. The Supervisory Board receives an annual compliance report from her, a copy of which is also delivered to the Management Board and the auditor. In case of serious compliance incidents, information is sent immediately to the Supervisory Board. ► Company's purpose, ethics and integrity − p. 191

The strategic development of the company's purpose is the responsibility of the Management Board. To this end, it seeks guidance and suggestions from the top managers. SolarWorld employs various management instruments in considering economic, ecological and social aspects ► Corporate management and control – p. 026. We have been certified in accordance with DIN ISO 9001, DIN ISO 14001, DIN ISO 50001 and BS OHSAS 18001. Opportunities and risks are covered comprehensively by our risk management tools. ► Group management report forecast – p. 065 Achievement of all group targets is reviewed regularly (on a monthly to yearly basis depending on urgency). We also comprehensively disclose our sustainability performance via our reporting. ► Communication on Progress to the UN Global Compact – p. 264 ► KPIs and KPNs for ESG - p. 254 ► GRI index - p. 257 Via the top managers, the Management Board gains insights into the key topics which have emerged from dialog with stakeholders. ► Stakeholders – p. 192 Authorities for economic, ecological and social topics are delegated by the Management Board to executives (either through job descriptions in which the tasks and responsibilities are clearly defined, or on a project-specific basis). Powers are given by the respective company's management.

Employees have the possibility to approach the Management Board with information and suggestions, either through their managers or directly. At our Arnstadt, Bonn and Freiberg sites, employees can also raise their concerns via the works council. Under German law, in many areas there are certain aspects which are subject to co-determination, which means that although employees cannot issue direct instructions to the Management Board, they are able to exert influence via the works council and either prevent or encourage particular developments. There are no designated workforce representatives on the Management Board. Stakeholders can directly approach the Management Board and the Supervisory Board with information and suggestions. Special communication mechanisms have not yet been implemented.

German stock corporation law regulates the exchange of information between shareholders and the Supervisory Board / Management Board. Shareholders have a right of participation (§ 118 (1) of the German Stock Corporation Act (AktG)) and a right to information at the Annual General Meeting (AGM) (§ 131 (1) AktG), and can exert influence by speaking and voting at the AGM (§§ 12, 134 AktG, Articles of Association of SolarWorld AG), submitting counter-

proposals (§ 126 AktG), demanding amendment of the agenda (§ 122 (2) AktG, with 5 percent or more of voting rights or a shareholding of at least € 500,000.00), submitting proposals for the election of Supervisory Board members (to be received by the company at least 14 days prior to the AGM, § 127 AktG), and by calling an extraordinary shareholders' meeting (§ 122 AktG, provided that on a cumulative basis at least 5 percent of the nominal capital is represented). The Management Board and Supervisory Board take questions from shareholders at the Annual General Meeting. Shareholders vote on whether to approve the Management Board's actions during the past year. The capital market regulations are complemented by the recommendations of the German Corporate Governance Code (DCGK) to which the Management Board and the Supervisory Board with few exceptions have been adhering and will continue to adhere. A sustainability component with a multi-year valuation basis completes the system. ▶ Remuneration report – p. 098 ► Remuneration – p. 247 The following main topics were discussed at the AGM in May 2014: the concluded financial restructuring, operative restructuring measures, the turnaround forecast, the acquisition of cell and module production facilities from Bosch Solar Energy AG, renegotiation of contracts with our silicon suppliers as well as the corresponding value adjustments, the legal dispute with a silicon supplier, further production capacity increase, product innovations, especially storage solutions, measures to reduce manufacturing costs, dumping by Chinese competitors, trade disputes and compensatory measures, Supervisory Board election (incl. Supervisory Board independence, financial expertise and diversity) ► The Share - p.029 ► Financial restructuring - S.033

## G4-56-58 COMPANY'S PURPOSE, ETHICS AND INTEGRITY

► Corporate Governance report – S. 093

Our vision • <u>www.solarworld.de/vision</u> has always been based on the principle of sustainability. Our guiding principles apply throughout the Group and are to be implemented by means of our management instruments and via the examples set by our executives. Our compliance management system is described in the management report. • <u>Corporate Governance</u> — <u>Compliance Management System</u> — <u>p. 097</u>

The Global Compliance Officer is in charge of the Local Compliance Officers and heads the Compliance Committee. The Compliance Committee meets at least quarterly and discusses preventative measures, among other things. Alongside the Global Compliance Officer, other members of the Compliance Committee are the Chief Information, Brand & Personnel Officer, Chief Financial Officer, Senior Auditor (Internal Audit), Director Global Finance & Accounting, Head of Global Controlling (including risk management), and Vice President Global Human Resources. The main tasks of the Compliance Committee are to analyze compliance cases, to decide on action to be taken in serious compliance cases, to develop and implement improvement measures, to close gaps in corporate guidelines, and continually improve the compliance organization. Training is conducted throughout the group in the main risk areas, which are identified via the compliance risk analysis. SolarWorld's Code of Conduct follows international standards (e.g. those of the International Labor Organization and the United Nations Global Compact) and is supplemented by further corporate policies and guidelines.

Questions can be addressed to all Compliance Officers in the company, as well as through our whistleblowing system SolarWorld SpeakUp, which is part of the Compliance organization and is operated by our Dutch service provider People Intouch B.V. Employees and suppliers have access. Employees are informed about this system when hired, as well as in compliance training. The information can be found at any time on the compliance intranet website. Suppliers are informed via email and our homepage. SolarWorld SpeakUp is available without limits (24/7): to employees in the languages German, English, Spanish and French, and to suppliers in German and English. It is managed by the Global Compliance Officer, and the Compliance Committee is automatically involved with every message. Users can remain anonymous (as permitted by law). All retaliation is strictly forbidden by the Code of Conduct. In 2014, 1 (2013: 1) information was left through the system. All other target groups are able to contact the Compliance Committee via email at ▶ integrity@solarworld.com. Alternatively, there is a contact form on the website that can be completed anonymously and which reaches the Global Compliance Officer directly.

SolarWorld signed up to the United Nations Global Compact in 2009 and has pledged to work for ist ten Principles. This includes making explicit reference to them in the SolarWorld Code of Conduct. We also try to commit our business and contract partners to complying with similar standards. The Supplier Code of Conduct requires our business partners to comply with all applicable environmental and social legislation, rules and Standards, and to operate

an efficient system to identify and eliminate potential hazards. In addition, our suppliers are encouraged to make their contractors and other business partners comply with these standards, too. The Supplier Code of Conduct forms part of contracts and in future, is to be included in our general terms and conditions, as well as in orders. ► <u>Corporate management and control − p. 026</u> ► <u>Goals and strategy − p. 024</u> ► <u>Employees − p. 052</u>

#### **STAKEHOLDERS**

#### G4-24

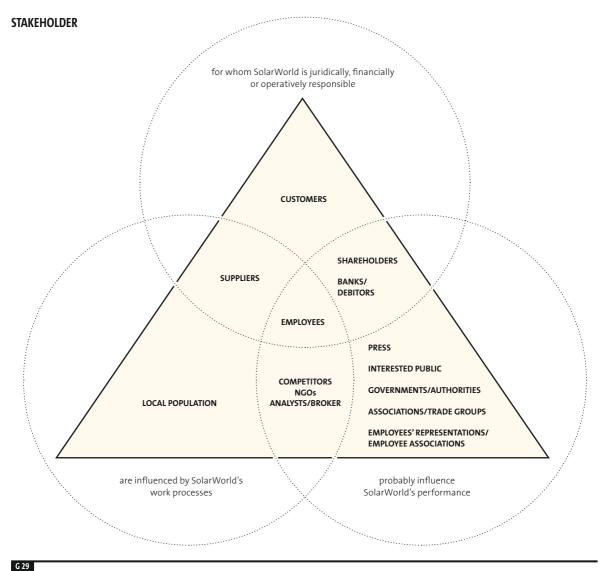
The stakeholder groups involved in the decisions taken by SolarWorld are primarily employees, customers (wholesalers, installers, but also end customers), SolarWorld group suppliers, banks/creditors and governments/authorities. Shareholders and investors are also included as stakeholder group in this section. Other stakeholders included here are analysts and brokers as intermediaries, NGOs, competitors, local residents, associations and trading communities, employees' representatives or associations, the press and interested members of the public.

# G4-25 IDENTIFICATION AND SELECTION OF STAKEHOLDERS

Based on Mason and Mitroff, 1981, and the criteria of the AccountAbility Standards AA 1000 SES, we use the following questions to determine the stakeholder groups for our activities:

- Who are we responsible for (in legal/financial/operational terms)?
- Who is directly or indirectly affected by/dependent on our activities or the impact of such activities?
- Who is in a position to influence (hamper/promote) or decide about implementation of our activities?
- Who are we in close contact with or with whom do we maintain long-term relationships?
- Who has voiced their opinion on issues of relevance to us?
- Which groups (formed by demographic or other characteristics) are likely to be interested in our activities and the results of these activities?

We maintain contacts with all stakeholder groups, with a particularly focus on the stakeholders for whom we are directly responsible.



G 29

The figure above provides an overview of our stakeholders based on the scheme underlying the AA 1000 Standards which is made available by a member organization, the not-for-profit Institute of Social and Ethical Accountability.

### G4-26 DIALOGUE WITH STAKEHOLDERS

The needs of all named stakeholder groups are included but they are analyzed to varying degrees of depth. SolarWorld carries out an internal analysis for all stakeholder groups, based on information available within the company and in external studies. Every year, we conduct a survey of our customers and maintain an intensive dialog with our specialist partners' advisory committee. Systematic customer surveys are carried out among our wholesalers and installers. So far, end customers have only been interviewed on an ad-hoc basis since such surveys require a lot of time and effort. Purchasing has stepped up communication with suppliers in recent years, e.g. via annual supplier days. Once a year, we conduct a survey among our suppliers on the occasion of the supplier rating. The first groupwide employee survey is scheduled for June 2015. In the mid-term, dialog is to be extended to include other stakeholder groups, too.

We maintain close links with the communities at our SolarWorld sites and discuss specific concerns. In our Solar2World projects 

www.solarworld.de/sustainability, we work closely with local stakeholders (e.g. communities and NGOs) to offer solutions that will give the population the maximum benefit and can be continued with local partners after completion of the project.

Thanks to our membership in associations and interest groups as well as our cooperative initiatives with scientific institutions, we maintain a regular dialog on social policy issues with stakeholders. We exchange ideas on topics like life cycle, recycling and sustainability with the EPIA Sustainability Group and the Silicon Valley Toxics Coalition (SVTC). Moreover, we are in dialog with the Solar Energy Industry Association (SEIA), also locall in Oregon and California, especially on political topics and trade issues.

The main topics of discussion with various stakeholder groups – for instance shareholders, investors and other persons interested in the company (e.g. press, customers, suppliers) in 2014 were the trade litigation in the United States, the trade complaint in the European Union, the acquisition of Bosch Solar Energy AG, the expansion of production capacities and (but decreasingly) the restructuring of the SolarWorld group.

As in previous years, we interviewed selected experts to determine the key topics for our reporting. The survey method was brought into line with that used for the internal analysis.  $\triangleright$  Reporting – p. 184

### In the year 2014 the expert pool was expanded and set up more internationally. Participants were:

- Dr. Matthias Fawer (Notenstein Privatbank AG, Switzerland) representing the capital market
- Dr. Udo Westermann (iöW/future e.V. verantwortung unternehmen, Germany) and Dustin Mulvaney (University of California, Berkeley, U.S.) as experts for sustainability ratings
- Mariska de Wild-Scholten (Smart Green Scans, Netherlands) as expert for life cycle analyses in photovoltaics
- Aiko Bode (Fenix Outdoor AB publ., Sweden) as company representative with many years of management experience in the areas of sustainability and compliance
- Laurent Baillet (Solewa, France), Virgile Suavet (Alaska Energies, France), Erin Clark (PetersenDean Roofing & Solar Offices, U.S.), Helge Hill (e.-line GmbH & Co. KG, Germany), Robert Soppart (EP SOPPART, Germany) and Dennis Köster (Köster Elektro-Technik, Germany) representing SolarWorld customers
- Peter Berghofer (Ulbrich of Austria GmbH, Germany), Igor Ruzansky (Bekaert Slovakia, Slovakia) sowie Thomas Olma und Carsten Mohr (Heraeus, Germany) representing suppliers
- Employees (groupwide survey in the Green Teams)
- Colette Rückert-Hennen (CIBPO) and Philipp Koecke (CFO) representing the SolarWorld Management Board

We also offer all stakeholders the opportunity to contact us any time via ► <u>placement@solarworld.com</u> and ► <u>sustainability@solarworld.com</u>. Since 2009, stakeholders have had the alternative option of sending us a message – even anonymously if they so wish – via a contact form on the website.

The Communications on Progress follows the ten Principles of the Global Compact and is made through group reporting procedures, which means it is available to all stakeholders. Stakeholder initiatives can even influence the implementation of these principles, for example, via networks built by/with stakeholders or standards requested by stakeholders.

As a result, the company is largely aware of the needs and takes them into account in its decision-making.

#### **STAKEHOLDERS**

Main stakeholders	Instruments		
Employees	Direct contact, employee surveys, works councils, company suggestions scheme		
Applicants	Direct contact, company presentations		
Customers (wholesalers, installers, end customers)	Direct contact, annual customer survey		
Suppliers	Direct contact, supplier surveys, supplier days		
Shareholders and investors	Direct contact, feedback after road shows, corporate news, Annual General Meeting		
Banks / creditors	Direct contact		
Residents / local population	Direct contact e.g. during events on the SolarWorld site, in the event of concerns or complaints voiced; for Solar2World projects direct involvement in the project		

Instruments		
Direct contact, feedback after road shows, investor days, corporate news		
Direct contact		
Networks, discussion forums		
Reporting, corporate news		
Direct contact in meetings and negotiations		
Direct contact via networks, trade shows, etc.		
Market research, direct contact		
Interviews, press releases, press conferences		

T 48

### **ENGAGEMENT IN NETWORKS AND INITIATIVES**

G4-16 **MEMBERSHIPS** 

SolarWorld holds the following memberships:

#### **VOLUNTARY MEMBERSHIP OF ASSOCIATIONS AND ADVOCACY ORGANIZATIONS**

Organization	Since	Member	Function
FlaSEIA (Florida Solar Energy Industries Association)	1989	SolarWorld Americas Inc.*	Board member
Semiconductor, Environmental, Safety and Health Association	1989	SolarWorld Americas Inc.*	Member
ASQ (American Society for Quality)	1992	SolarWorld Americas Inc.*	Member
Singapore Natinoal Employers Federation (SNEF)	1996	SolarWorld Asia Pacific Pte Ldt.	Member
UL/PV section	1997	SolarWorld Americas Inc.*	Advisory Council member
NFPA (National Fire Prevention Association)	1998	SolarWorld Americas Inc.*	Member
DGS (Deutsche Gesellschaft für Sonnenenergie) e.V.	1998	SolarWorld AG	Member
Eurosolar	1999	SolarWorld AG	Member
FSEC (Florida Solar Energy Center)	2000	SolarWorld Americas Inc.*	Board member
Freiberger Interessengemeinschaft der Recycling- und Ent- sorgungsunternehmen (F.I.R.E.) e.V.	2002	SolarWorld Industries Sachsen GmbH	Member
Dresdner Gesprächskreis der Wirtschaft und Wissenschaft e.V.	2002	SolarWorld Industries Sachsen GmbH	Member
Bundesverband Solarwirtschaft	2003	SolarWorld AG / Milan Nitzschke	Member (Board member since 2007)
Silicon Saxony e.V.	2003	SolarWorld Industries Sachsen GmbH	Member
Verband der industriellen Energie- und Kraftwirtschaft (VIK)	2005	SolarWorld Industries Sachsen GmbH	Member
EPIA (European Photovoltaic Industry Association)	2006	SolarWorld AG / Milan Nitzschke	Member
"Technische Universität Bergakademie Freiberg" foundation	2006	Prof. Dr. Peter Woditsch	Member of the foundation council
Stifterverband für die Deutsche Wissenschaft	2006	Mario Behrendt	Member of the regional trust for central Germany
The Association of Chartered Certified Accountants (ACCA) and the Malaysia Institute of Accountants (MIA)	2006	Cheryl Liew	Member
OSEIA (Oregon Solar Industry Association)	2007	SolarWorld Americas Inc.	Board member
Zoologisches Forschungsmuseum Alexander Koenig, Leibniz-Institut für Biodiversität der Tiere	2007	DrIng. E. h. Frank Asbeck	Chairman of the trustees of the Alexander-Koenig- Gesellschaft
Hillsboro Chamber of Commerce	2007	SolarWorld Americas Inc.	Member
Columbia-Willamette Compensation Group	2007	SolarWorld Americas Inc.	Member
International Facility Management Association	2007	SolarWorld Americas Inc.	Member
Portland Business Alliance	2007	SolarWorld Americas Inc.	Member

Organization	Since	Member	Function	
Portland Human Resource Management Association	2007	SolarWorld Americas Inc.	Member	
Bergstädtischer Sportclub Freiberg e.V.	2008	SolarWorld Industries Sachsen GmbH	Supervisory Board member	
CALSEIA (California Solar Energy Industry Association)	2008	SolarWorld Americas Inc.	Member	
Foundation council of the Mittelsächsisches Theater foundation	2008	Mario Behrendt	Member	
Oregon Business Association	2008	SolarWorld Americas Inc.	Member	
Westside Transportation Alliance	2008	SolarWorld Americas Inc.	Member	
UN Global Compact	2009	SolarWorld AG	Member	
Centre of Excellence for TPM at Ansbach University	2010	SolarWorld Industries Sachsen GmbH/Mario Behrendt/ Ralf Petzold	Member	
Gesellschaft für Datenschutz (GDD) e.V.	2011	SolarWorld Industries Sachsen GmbH/Thomas Leuschel	Member	
Greater Portland Construction Partnership	2011	SolarWorld Americas Inc.	Member	
South African Photovoltaic Industry Association	2011	SolarWorld Africa (Pty) Ltd./ Gregor Küpper	Member/Member of the Producers Committee	
Sustainable Energy Society of Southern Africa	2011	SolarWorld Africa (Pty) Ltd.	Board member of the PV-division	
South African-German Chamber of Commerce	2011	SolarWorld Africa (Pty) Ltd./ Gregor Küpper	Advisory board member/Member of the Regional Council Western and Eastern Cape, Head of Portfolio Energy	
			& Renewable Energy for Western and Eastern Cape	
	2011	SolarWorld France SAS	& Renewable Energy for Western and	
	2011	SolarWorld France SAS SolarWorld Asia Pacific Pte Ltd.	& Renewable Energy for Western and Eastern Cape	
Sustainable Energy Association of Singapore (SEAS)			& Renewable Energy for Western and Eastern Cape Member	
Sustainable Energy Association of Singapore (SEAS) Clean Energy Council, Australia	2011 2011 2011	SolarWorld Asia Pacific Pte Ltd.	& Renewable Energy for Western and Eastern Cape Member Member	
Sustainable Energy Association of Singapore (SEAS) Clean Energy Council, Australia Asia Photovoltaic Industry Association (APVIA)	2011	SolarWorld Asia Pacific Pte Ltd. SolarWorld Asia Pacific Pte Ltd.	& Renewable Energy for Western and Eastern Cape Member Member Sponsoring Member	
Sustainable Energy Association of Singapore (SEAS)  Clean Energy Council, Australia  Asia Photovoltaic Industry Association (APVIA)  Renewable Energy & Energy Efficiency	2011 2011 2011	SolarWorld Asia Pacific Pte Ltd. SolarWorld Asia Pacific Pte Ltd. SolarWorld Asia Pacific Pte Ltd.	& Renewable Energy for Western and Eastern Cape Member Member Sponsoring Member Member Advisory board	
Sustainable Energy Association of Singapore (SEAS)  Clean Energy Council, Australia  Asia Photovoltaic Industry Association (APVIA)  Renewable Energy & Energy Efficiency  Photovoltaic Austria	2011 2011 2011 2012	SolarWorld Asia Pacific Pte Ltd. SolarWorld Asia Pacific Pte Ltd. SolarWorld Asia Pacific Pte Ltd. SolarWorld Americas Inc.	& Renewable Energy for Western and Eastern Cape Member Member Sponsoring Member Member Advisory board member	
Sustainable Energy Association of Singapore (SEAS)  Clean Energy Council, Australia  Asia Photovoltaic Industry Association (APVIA)  Renewable Energy & Energy Efficiency  Photovoltaic Austria  MX: Membership in Manufacturing Excellence	2011 2011 2011 2012 2012	SolarWorld Asia Pacific Pte Ltd. SolarWorld Asia Pacific Pte Ltd. SolarWorld Asia Pacific Pte Ltd. SolarWorld Americas Inc. SolarWorld AG SolarWorld Industries	& Renewable Energy for Western and Eastern Cape Member Member Sponsoring Member Member Advisory board member Member	
Sustainable Energy Association of Singapore (SEAS)  Clean Energy Council, Australia  Asia Photovoltaic Industry Association (APVIA)  Renewable Energy & Energy Efficiency  Photovoltaic Austria  MX: Membership in Manufacturing Excellence  Utah Solar Energy Association (UT Solar)	2011 2011 2011 2012 2012 2012	SolarWorld Asia Pacific Pte Ltd. SolarWorld Asia Pacific Pte Ltd. SolarWorld Asia Pacific Pte Ltd. SolarWorld Americas Inc. SolarWorld AG SolarWorld Industries Sachsen GmbH	& Renewable Energy for Western and Eastern Cape Member Member Sponsoring Member Member Advisory board member Member Member	
Sustainable Energy Association of Singapore (SEAS)  Clean Energy Council, Australia  Asia Photovoltaic Industry Association (APVIA)  Renewable Energy & Energy Efficiency  Photovoltaic Austria  MX: Membership in Manufacturing Excellence  Utah Solar Energy Association (UT Solar)  Solar Oregon	2011 2011 2011 2012 2012 2012 2012	SolarWorld Asia Pacific Pte Ltd. SolarWorld Asia Pacific Pte Ltd. SolarWorld Asia Pacific Pte Ltd. SolarWorld Americas Inc.  SolarWorld AG SolarWorld Industries Sachsen GmbH SolarWorld Americas Inc.	& Renewable Energy for Western and Eastern Cape  Member  Member  Sponsoring Member  Member  Advisory board member  Member  Member  Member  Member  Member	
Sustainable Energy Association of Singapore (SEAS)  Clean Energy Council, Australia  Asia Photovoltaic Industry Association (APVIA)  Renewable Energy & Energy Efficiency  Photovoltaic Austria  MX: Membership in Manufacturing Excellence  Utah Solar Energy Association (UT Solar)  Solar Oregon  Hawaii Solar Energy Association	2011 2011 2011 2012 2012 2012 2012 2012	SolarWorld Asia Pacific Pte Ltd. SolarWorld Asia Pacific Pte Ltd. SolarWorld Asia Pacific Pte Ltd. SolarWorld Americas Inc.  SolarWorld AG SolarWorld Industries Sachsen GmbH SolarWorld Americas Inc. SolarWorld Americas Inc.	& Renewable Energy for Western and Eastern Cape Member Member Sponsoring Member Member Advisory board member Member Member Member Member Member Member Member	
Sustainable Energy Association of Singapore (SEAS)  Clean Energy Council, Australia  Asia Photovoltaic Industry Association (APVIA)  Renewable Energy & Energy Efficiency  Photovoltaic Austria  MX: Membership in Manufacturing Excellence  Utah Solar Energy Association (UT Solar)  Solar Oregon  Hawaii Solar Energy Association  Solar Electric Power Association	2011 2011 2011 2012 2012 2012 2012 2012	SolarWorld Asia Pacific Pte Ltd. SolarWorld Asia Pacific Pte Ltd. SolarWorld Asia Pacific Pte Ltd. SolarWorld Americas Inc.  SolarWorld AG SolarWorld Industries Sachsen GmbH SolarWorld Americas Inc. SolarWorld Americas Inc. SolarWorld Americas Inc.	& Renewable Energy for Western and Eastern Cape  Member  Member  Sponsoring Member  Member  Advisory board member  Member  Member  Member  Member  Member  Member  Member  Member	
Enerplan  Sustainable Energy Association of Singapore (SEAS)  Clean Energy Council, Australia  Asia Photovoltaic Industry Association (APVIA)  Renewable Energy & Energy Efficiency  Photovoltaic Austria  MX: Membership in Manufacturing Excellence  Utah Solar Energy Association (UT Solar)  Solar Oregon  Hawaii Solar Energy Association  Solar Electric Power Association  Solar Austin Foundation  IEK (Initiative Erfurter Kreuz)	2011 2011 2011 2012 2012 2012 2012 2012	SolarWorld Asia Pacific Pte Ltd. SolarWorld Asia Pacific Pte Ltd. SolarWorld Asia Pacific Pte Ltd. SolarWorld Americas Inc.  SolarWorld AG SolarWorld Industries Sachsen GmbH SolarWorld Americas Inc.	& Renewable Energy for Western and Eastern Cape  Member  Member  Sponsoring Member  Member  Advisory board member	
Sustainable Energy Association of Singapore (SEAS)  Clean Energy Council, Australia  Asia Photovoltaic Industry Association (APVIA)  Renewable Energy & Energy Efficiency  Photovoltaic Austria  MX: Membership in Manufacturing Excellence  Utah Solar Energy Association (UT Solar)  Solar Oregon  Hawaii Solar Energy Association  Solar Electric Power Association  Solar Austin Foundation	2011 2011 2011 2012 2012 2012 2012 2012	SolarWorld Asia Pacific Pte Ltd. SolarWorld Asia Pacific Pte Ltd. SolarWorld Asia Pacific Pte Ltd. SolarWorld Americas Inc.  SolarWorld AG SolarWorld Industries Sachsen GmbH SolarWorld Americas Inc.	& Renewable Energy for Western and Eastern Cape Member Member Sponsoring Member Member Advisory board member	

#### T 49

 $<sup>{\</sup>it *This includes the former Shell Solar/Siemens Solar/Arco Solar.}$ 

## G4-15 PARTICIPATION IN INITIATIVES

SolarWorld participates in the following initiatives:

#### **PARTICIPATION IN INITIATIVES**

	Timeframe	Locations	Established by/including	Motivation
Application of: a) DIN ISO 9001 b) DIN ISO 14001 c) DIN ISO 50001 d) BS OHSAS 18001	Since: a) 2004 b) 2010 c) 2013 d) 2012	a) SolarWorld group b) SolarWorld group (since 2014 without sales sites in ROW) c) Production sites d) Solar Industries Sachsen (module production), SolarWorld Industries Thüringen (module production), SolarWorld Americas Inc. (module production and logistics), SolarWorld Holding	a) – c) ISO d) BSI	Voluntary
Member of the UN Global Compact	Since 2009	SolarWorld group	United Nations	Voluntary
Reporting in accordance with KPIs and KPNs for ESG by EFFAS/DVFA	Since 2008	SolarWorld group	EFFAS/DVFA	Voluntary
Code of Conduct	Since 2013	SolarWorld group	Employees	Voluntary
Reporting under the GRI framework	Since 2007	SolarWorld group	GRI, based on a worldwide multi-stakeholder dialog	Voluntary
Participation in the NetJets Climate Initiative	Since 2007	SolarWorld group	NetJets	Voluntary
Participation in the Carbon Disclosure Project (CDP)	Since 2005	SolarWorld group	Institutional investors	Voluntary

T 50

#### **AWARDS**



#### **GREEN BRANDS 2014/2015**

In September 2014, SolarWorld AG qualified once again for the GREEN BRANDS seal. The seal is presented annually to brands with a proven track record of environmentally sustainable actions both inside and outside the company. GREEN BRANDS is an international and independent brand marketing organization headquartered on the "emerald isle" of Ireland. The internationally acknowledged certificate is awarded following a challenging three-stage process (nomination, validation and final evaluation by an independent jury). The award underpins the SolarWorld group's environmental responsibility and sustainable corporate governance.



#### CHANGEMAKER 2014

In February 2014, SolarWorld was accepted into the Change-maker program of the Utopia Foundation. Companies that become Changemakers publically commit to transparency and to dialog on Germany's largest website for sustainable consumption. The level of the voluntary commitments is assessed by an independent expert network of the Utopia Foundation. The Utopia Changemaker Manifesto is a voluntary commitment by responsible companies for sustainable corporate governance. At the beginning of 2015, SolarWorld published its first progress report on Utopia.

## AWARD FOR COMPANY INTEGRATION MANAGEMENT IN 2014

Deutsche Solar GmbH received an award from the Municipal Social Welfare Association of Saxony in 2014 for implementing and developing a company integration management system. Various integration measures are in place: workplace and workflow analysis, review of alternative suitable jobs, reducing the individual's working hours, and modifying work tasks through further training or retraining. Particular emphasis is placed on designing jobs that are appropriate for the employee's age and disability. In addition, preventive measures are implemented. For example, back exercise classes are offered

#### **GERMAN DESIGN AWARD 2014**

The SolarWorld SunCharger was honored in February 2014 by the German Design Council, one of the leading international centers of design excellence, with the German Design Award in the category "Special Mention". With this international premium award, an expert jury pays tribute to work whose design exhibits particularly successful aspects or solutions. The cell phone-sized solar power system unifies three functions: It serves as a power supply, reserve battery and solar charger.



## SILICON VALLEY TOXICS COALITION, SCORECARD RANKING, 4<sup>th</sup> PLACE (2013: 5<sup>th</sup> PLACE)

In its survey, non-profit enterprise Silicon Valley Toxics Coalition (SVTC) assesses companies according to a variety of criteria such as environment, health and safety, sustainability, workers' rights and social fairness. Aspects considered include product return systems and recycling, workers' health and safety, a life cycle analysis, an analysis of the use of chemicals, and disclosure statements. In the 2014 ranking, SolarWorld achieved fourth place with 73 points, behind Trina Solar (92 points), SunPower (88 points) and Yingly (81 points).



## OEKOM RESEARCH, 2014: PRIME B+ (2013: PRIME A)

SolarWorld has retained its PRIME Standard rating from oekom research. Companies that received Prime status are sustainability leaders in their industry. Thus, the Solar-World stock continues to qualify as an ecological and social investment. According to oekom, the change in the overall score from A to B+ is due to an adjustment of the scoring system, and therefore does not mean that SolarWorld's sustainability performance has substantially worsened.

## WORKPLACE CHARGING CHALLENGE PARTNER 2014

SolarWorld Industries Inc. was declared a Workplace Charging Challenge Partner for 2014 by the non-profit organization Drive Oregon. This distinction recognizes the fact that the company provides solar vehicle charging stations for its employees free of charge.

#### **CLEAN WATER SERVICES AWARD 2014**

Clean Water Services, the water resources management utility in Hillsboro, presented an award to SolarWorld Industries America Inc. in 2014 for its perfect record in meeting water quality requirements in 2013. SolarWorld Industries America Inc. was one of 39 companies to receive an award for its efforts to keep harmful substances out of local waters. Industries that dispose not just blackwater, graywater and stormwater have to comply with federal and local regulations for water pre-treatment. These regulations protect water drained into rivers and streams, and ensure that industrial by-products, chemicals and metals are recycled at source.

# **PERFORMANCE INDICATORS**

#### **ECONOMIC PERSPECTIVE**

#### G4-EC1+4+7 ECONOMIC VALUE

This list is intended to provide information on the total economic value generated directly by the company and how

it is used, in particular the ratio between distributed and retained economic value. It is considered in monetary terms.

#### DIRECT ECONOMIC VALUE GENERATED AND DISTRIBUTED

in k€	2014	2013	2012	2011	Sales revenues + other operating income + net income from investments accounted for using the equity method + interest and other financial income	
a) Income  Distributed	797,136	510,172	747,088	1,311,659		
monetary value						
b) Operating expenses	-605,511	-591,406	-1,122,057	-1,411,068	Changes in inventory of products + own work capitalized + material costs + depreciation + other operating expenditure	
c) Salaries and company benefits	-138.281	-112.366	-129,648	-138,224	Personnel expenditure	
d) Payments to capital providers	519,355	-71,803	-55,257	-65,716	Interest and other financial expenses + net earnings from financial instruments	
e) Payments to public authorities	-3,073 Germany: -2,642 France: -158 US: -37 Singapore: -180 South Africa: -56	-3,383 Germany: -2,091 USA: -1,177 Singapore: -48 South Africa: -67	-4,945 Germany: -4,780 USA: -78 Singapore: -70 South Africa: -17	-23,023 Germany: -21,237 USA: -54 Singapore: -397 South Korea: -1,336	Taxes on income (without deferred taxes) ► 12. Income taxes – p. 144	
f) Investments in the community	-119	-101	-375	-508	Donations in money and in kind (donations to political parties are not included and have not been made since 2010)	
Retained monetary value (negative: reversal of retained monetary value)	569,626	-268,887	-564,819*	-326,880		

T 51

<sup>\*</sup> Main impact 2012 from extraordinary amortization.

Significant investments in infrastructure and services provided mainly for public benefit were not made in 2014. We assume that positive and negative impacts of our activities balance each other out. A needs analysis was, however, not performed. We do support such investments in infra-

structure and services through our Solar2World projects with module donations to e.g. schools, hospitals or radio stations. In the year 2014, we delivered 120 (2013: 146) kWp under Solar2World.

#### FINANCIAL ASSISTANCE RECEIVED FROM GOVERNMENT

in K€	2014	2013	2012	2011
Investment grants	8,288	10	27,508	23,906
Research grants	7,373	7,195	5,261	3,938

T 52

There is no government body holding shares in SolarWorld AG. In Germany, the group pays the EEG levy everywhere except in wafer production at Freiberg and in parts of the production facility at Arnstadt (equating to around  $\leqslant$  9 million). Furthermore, the production sites in Germany pay electricity tax at a 75 percent reduced rate (equating to around  $\leqslant$  2.5 million).

#### G4-12+EC9 PROCUREMENT

Purchasing is a global, strategic area in the SolarWorld group. ► <u>Global Supply Chain – p. 054</u> Apart from ensuring security of supply, the goal of the purchasing strategy is a competitive advantage for the SolarWorld group on the international solar market, currently in particular through cost savings. The Supplier Development Program was set up to invest in long-term business relationships and develop suppliers. We have been hosting supplier events since 2012 where we encourage discussion of sustainability-related topics.

Material suppliers and service providers for the SolarWorld group are, depending on the context, our main suppliers or, in particular, the suppliers of direct material. We name main suppliers the strategic suppliers (meaning the largest in terms of purchasing expenditures), the suppliers with a unique selling proposition, and the technology partners. Our supply chain is strongly characterized by suppliers of direct material. They provide us with the input factors for the Bill of Materials (BOM) and the Balance of System (BOS) and make up more than 60 (2013: 50) percent of procurement costs. At almost 5 (2013: 5) percent of expenditures, suppliers of operating supplies (e.g. energy, water) have only a limited influence. In 2014, a total of around € 540 (2013: 350) million went to suppliers and service providers. As a result of our global sourcing strategy, 57 (2013: 47) percent of procurement costs are paid to suppliers located in Europe and the United States. In Asia, it is now 42 (2013: 52) percent; and in other countries 1 (2013: 1) percent. The geographical position plays a minor role in selecting suppliers since the equipment and commodity market is an international market. For our (not-for-profit) Solar2World projects, we involve local partners as far as possible in particular for rack technology and installation. Despite that, the selection is made according to commercial criteria as well as to the criteria quality, technology, logistics and sustainability, with local manufacturers having a logistical advantage. Sustainability is included in the overall evaluation with a weighting of 15 percent. At the beginning of 2015, we evaluated 93 (2014: 84) percent of our direct material suppliers – certifications in 2014: 98 (2013: > 95.5) percent DIN ISO 9001, 80 (2013: 78.8) percent DIN ISO 14001, 46 percent DIN OHSAS 18001, 35 percent DIN ISO 50001. 22 percent of the suppliers have a sustainability report following recognized standards (e.g. along GRI or ISO 26000). We perform on-site quality audits on average every two to three years for all direct material suppliers with a significant risk assessment. Criteria for the risk assessment are, for example, whether the supplier is new, what type of material the supplier supplies, the country in which the supplier is located and which local standards therefore apply, which certifications the supplier has, the results of material tests, and if there were complaints. Audits look for deviations in the areas of production, quality assurance systems, change management, shipping and accounting. Audits are performed on an ad hoc basis where a concrete reason exists. In 2014, 25 (2013: 17) percent of suppliers of BOM and BOS were audited by SolarWorld on the basis of a risk assessment. Normally, the share of BOM and BOS is approximately 30 percent per year. In the future, the material sustainability risks in the value chain will be taken into account more strongly during these on-site visits.

The analysis and evaluation of the supply chain is gaining importance for SolarWorld, but is still a big challenge due to its complexity, especially regarding the upstream suppliers. For instance regarding the the non-use of conflict materials, the tracing of the source, origin or production conditions for second and third-tier suppliers has been achieved through self-reporting. At the end of 2014, we began testing a software tool that can be used to represent our supply chain and systematically analyze publicly available information.

# G4-EC2 CLIMATE CHANGE: OPPORTUNITIES AND RISKS

Our management takes account of the opportunities and risks related to climate change for our business activities. ▶ Individual risks – p. 070 ▶ Opportunity report – p. 081 We see more opportunities than risks for SolarWorld, given the great upsurge in interest in solar energy over recent years, which is partly a result of the climate debate. The United Nations officially lists solar energy as an energy source that has net zero greenhouse gas emissions. We therefore expect solar energy to achieve competitive advantages over conventional energy sources in the long term. We also anticipate competitive advantages within the solar industry, since we analyze the life cycle of our products and disclose detailed, transparent results – so far, this is a unique selling proposition. Data is updated as necessary in our annual disclosure via the Carbon Disclosure Project (CDP).

SolarWorld is faced with the following regulatory, physical and other risks and opportunities.

# **REGULATORY, PHYSICAL AND OTHER RISKS**

Description	Potential impact	Time- frame	Direct/ Indirect impact	Likelihood	Magnitude of impact
Amendments of renewable energy regulation to the disfavor of solar power use in each key solar market	Reduced demand for goods/services	Current	Indirect (Client)	Very likely	High
Higher operational costs for transportation (goods) and employee commuting to and from work	Other: Increased costs in the value chain	1–5 years	Direct	Likely	Medium
Uncertainty of further development of renewable energy regulation in each key solar market	Reduced demand for goods/services	1–5 years	Indirect (Client)	Likely	Medium
Lack of binding agreements in favor of solar power	Reduced demand for goods/services	6–10 years	Indirect (Client)	More likely than not	Low- medium
We are as exposed to climate change (e.g. extreme weather events) as are other companies, but we are not especially vulnerable to one of the factors mentioned.	Reduction/disruption in production capacity	Current	Direct	More likely than not	Medium- high
The public discussion about regulation for renew- able energies, the U.S. trade case and the EU trade complaint is partly in disfavor of solar industry.	Reduced demand for goods/services	Current	Indirect (Client)	Very likely	Medium- high
	Amendments of renewable energy regulation to the disfavor of solar power use in each key solar market  Higher operational costs for transportation (goods) and employee commuting to and from work  Uncertainty of further development of renewable energy regulation in each key solar market  Lack of binding agreements in favor of solar power  We are as exposed to climate change (e.g. extreme weather events) as are other companies, but we are not especially vulnerable to one of the factors mentioned.  The public discussion about regulation for renewable energies, the U.S. trade case and the EU trade	Amendments of renewable energy regulation to the disfavor of solar power use in each key solar market  Higher operational costs for transportation (goods) and employee commuting to and from work  Uncertainty of further development of renewable energy regulation in each key solar market  Lack of binding agreements in favor of solar power  We are as exposed to climate change (e.g. extreme weather events) as are other companies, but we are not especially vulnerable to one of the factors mentioned.  Reduced demand for goods/services  Reduction/disruption in production capacity  Reduction/disruption in production capacity  Reduced demand for goods/services	Amendments of renewable energy regulation to the disfavor of solar power use in each key solar market  Higher operational costs for transportation (goods) and employee commuting to and from work  Uncertainty of further development of renewable energy regulation in each key solar market  Lack of binding agreements in favor of solar power ware as exposed to climate change (e.g. extreme weather events) as are other companies, but we are not especially vulnerable to one of the factors mentioned.  The public discussion about regulation for renewable energies, the U.S. trade case and the EU trade  Reduced demand for goods/services  Reduction/disruption in production capacity  Current Reduced demand for goods/services	Amendments of renewable energy regulation to the disfavor of solar power use in each key solar market  Higher operational costs for transportation (goods) and employee commuting to and from work  Uncertainty of further development of renewable energy regulation in each key solar market  Each of binding agreements in favor of solar power weather events) as are other companies, but we are not especially vulnerable to one of the factors mentioned.  Meduced demand for goods/services  Other: Increased costs in the value chain  Possible further development of renewable energy regulation in each key solar market  Reduced demand for goods/services  Reduced demand for goods/services  Reduction/disruption in production capacity  Current Direct  Direct  Direct  Direct  Reduced demand for goods/services  Current Direct  Direct  Reduced demand for goods/services  Current Direct  Direct  Current Direct  Current Direct  Direct  Current Direct	Amendments of renewable energy regulation to the disfavor of solar power use in each key solar market  Higher operational costs for transportation (goods) and employee commuting to and from work  Uncertainty of further development of renewable energy regulation in each key solar market  Each of binding agreements in favor of solar power weather events) as are other companies, but we are not especially vulnerable to one of the factors mentioned.  Reduced demand for goods/services  Reduced demand for goods/services

The mentioned risks in case of occurence could result in financial implications: caused by reduction in output, demand and increased costs. Part of our risk management are for instance activities for restructuring and streamlining of our business, financial restructuring of our company and contributing to the political discussion. The major physical risks identified by the International Panel on Climate Change (IPCC) include: sea level rise, water shortage, hurricanes and typhoons, as well as floods and droughts, depending on the region. Solar World is not especially exposed to physical climate risks due to its geographic location, but there is a general exposure to extreme weather events. The financial implications could be high if the company's buildings and equipment are damaged, if day-to-day business has to be interrupted or the up- or downstream value chain is affected. This risk is managed through our regular

insurances covering storm, hail, snow load, avalanches, floods, subsidence and landslides, and indirectly even fire hazard (e.g. if forest fires would spread to our building). Apart from property damage, business interruption is also insured against damages at SolarWorld or at our suppliers. The total financial risk is reduced, but cannot be completely covered due to deductibles, maximum indemnities and maybe even exclusion of benefits. Regarding the reputational risk, the financial implications can be caused by a reduction in sales. Part of our risk management activities are for instance stakeholder dialogs and the continued participation in the political discussion. In total, the cost of the bundle of counteractions is estimated to be lower than the costs the company would have to bear without those counteractions.

# REGULATORY, PHYSICAL AND OTHER OPPORTUNITIES

,						
Opportunity driver	Description	Potential impact	Time- frame	Impact - Direct/ Indirect	Likelihood	Magnitude of impact
General environmental regulations, including planning	As awareness on the climate change issues increases worldwide, new regulations will be implemented, which will aim to reduce emissions through the establishment of low-carbon products and technologies. Especially after the nuclear accident in Fukushima, politicians increasingly recognize that renewable energies are one of the key solutions. Over the last years, the use of low-carbon products as a means for climate protection has been developing into an important market worldwide. For companies like SolarWorld whose products offer solutions in mitigation of climate change, regulatory policies for climate protection represent an important business opportunity.	Increased demand for existing products/ services	1–5 years	Direct	More likely than not	Medium- high
International agreements	The European Union has agreed to reduce its GHG emissions by 20 percent by the year 2020; one of its ways to achieve this is by increasing the share of renewable energy in the energy mix up to 20 per cent until 2020. Many countries within the EU have therefore established regulations to support the development and installation of renewable energy systems through feed-in tariffs, green bonus systems, renewable energy standards as well as rebate programs. Germany has agreed to increase its renewable energies target to 25 percent by the year 2020.	Increased demand for existing products/ services	1–5 years	Direct	More likely than not	Medium- high
Carbon taxes	A carbon tax supports the use of renewable energies such as solar power.	Increased demand for existing products/ services	6–10 years	Indirect (Client)	Likely	Medium
Product labeling regulations and standards	Credible labels for high product quality and high ecological and social performance help customers in decision making	Increased demand for existing products/ services	1–5 years	Indirect (Client)	Likely	Medium
Fuel/energy taxes and regulations	Increasing costs for fossil fuels support the use of renewable energies such as solar power.	Increased demand for existing products/ services	1–5 years	Indirect (Client)	Likely	Medium- high
Other physical climate opportunities	Changes in physical climate parameters are a clear argument for solar power. Severe weather events make the population more aware of the danger.	Increased demand for existing products/ services	6–10 years	Indirect (Client)	Likely	Medium- high
Changing consumer behaviour	Solar applications becoming more popular	Increased demand for existing products/ services	1–5 years	Direct	More likely than not	Medium
Reputation	Reputation of a company that invests in clean products and a sustainable society	Premium price opportunities	1–5 years	Direct	More likely than not	Medium- high
Reputation	Reputation of a company that invests in clean products and a sustainable society	Wider social benefits	1–5 years	Direct	More likely than not	Medium

Regarding the regulatory opportunities, financial implications can arise from potential volume growth, as well as a premium price in the market for our high-quality products. Solar power is one of the key answers to climate change and stricter regulation on climate change increase our business potential. The following activities help seize this opportunity: marketing campaigns to raise awareness, lobbying for political support in favour of a sustainable energy supply, as well as restructuring and streamlining of our company to be able to meet future demand. Physical impacts (e.g. droughts, floods, storms) due to climate change raise public awareness and thus, reinforce our core business. Therefore financial implications are positive. We are also continuously engaged in public discussion. The costs cannot be separated from the general marketing and public relations costs, but the costs are estimated to be lower than the positive financial impacts. With regard to changing consumer behaviour,

the financial implications can arise from stronger demand. Regarding the reputation of the company, positive financial implications can arise from a broad range of factors, such as stronger brand recognition, more support from stakeholders and the image of being an attractive company to potential employees. To manage this opportunity we pursue a sustainable corporate governance and communication regarding our sustainability performance: e.g. via campaigns and the annual reporting, as well as corresponding marketing measures when recruiting potential employees. The costs of mitigation and adaptation cannot be shown as these actions cover much more, but the costs are estimated to be lower than the positive financial impacts.

The total expended costs for dealing with risks and opportunities are not yet being assessed.

# **ENVIRONMENTAL PROTECTION**

SolarWorld supplies the technology for transforming solar energy into electric power. Resource consumption represents a powerful cost lever for the group and has direct environmental effects as well as a social component through the access to and distribution of resources. Especially the economic and ecological effects are closely linked in resource consumption, and often move in the same direction. For example, efficiency measures usually pay off twice. Trade-offs occur when this is not the case and the effects run counter to one another. For example, when the use of another substance results in better environmental impacts, but at a higher cost. To take account of the environmental impacts of our supply chain, SolarWorld performs a life cycle analysis for our modules from the extraction of raw materials on.

External assessments are performed as part of the certifications according to the quality management standard DIN ISO 9001, the environmental management standard DIN ISO 14001, the BS OHSAS 18001 and the energy management standard DIN ISO 50001. The audits identified no material deviations. We also possess an established Total Production Management (TPM), which is aimed at comprehensive process optimization and efficiency improvements.

The data for the year 2014 is generally estimated and preliminary: The month of December as well as the data for the sales locations Bonn, France, South Africa and Singapore were extrapolated on the basis of previous year's data as well as comparison months and locations. On the one hand, this is necessary because settlements are received with delay, which means they cannot be taken into account in the report. On the other hand, a flat fee is charged for some consumption as part of the office rent at the sales locations. The figures can be updated in the context of the yearly disclosure for the Carbon Disclosure Project (CDP).

#### G4-EN29+34

Complaints were neither registered in the year 2014 nor in the previous years. There were no environmental offenses and thus no sanctions.

# **ENVIRONMENTAL GOALS**

Since the start of 2013, we have set ourselves global environmental goals with a time horizon to 2020 that are also part of our Changemaker Manifesto. These goals are broken down across individual sites and translated into specific measures. We report annually on the progress, and beginning in 2014, the internal assessment is made on a quarterly basis. In early 2015, Utopia published SolarWorld's first progress report: ► www.utopia.de/changemaker

#### **ENVIRONMENTAL TARGETS 2020**

	Unit	Base year 2012	Target 2020/ percentage change	Status 2014/ percentage
Energy & climate protection			Change	change
Groupwide energy consumption	kWh/Wp	0.63	0.47 -25 %	0.50 -21%
Cumulated energy demand (life cycle)	MJ <sub>eq</sub> /Wp	21.6	16.2 -25%	20.0 -8%
Groupwide $CO_2$ emissions	kgCO <sub>zeq</sub> /Wp	0.45	0.29 -35 %	0.31 -31%
Global Warming Potential (life cycle)	kgCO <sub>zeq</sub> /Wp	1.33	0.98 -25 %	0.82 -37 %
Average CO <sub>2</sub> emissions from passenger cars in the SolarWorld vehicle fleet (new passenger cars)	gCO <sub>2eq</sub> /km	152 (all passenger cars)	95 -38%	139 -8%
Water				
Specific volume of water consumption	m³/MWp	2,253	2,028 -10%	1,908 -15 %
Specific volume of waste water discharge	m³/MWp	1,738	1,564 -10%	1,689 -3 %
Waste				
Specific volume of waste	t/MWp	26.9	24.2 -10%	28.8 +7%

T 55

# G4-EN1+2 MATERIALS USED

Our life cycle analysis enables us to state the materials used in terms of weight. For this, we use the Simapro software and the Ecoinvent database.

The material consumption increased in total due to the higher production in 2014. Non-renewable materials only

account for a tiny proportion of total material consumption because a large proportion of the total is water. Reliable data on our recycling rate for many input factors are not available to us. Therefore, we can only state here the proportion that is recycled directly at our site. The percentage therefore appears to be disproportionately low. Since 2012, the packaging material transported to Hillsboro is passed on to an external recycling partner and is therefore excluded from this analysis.

#### **MATERIALS USED**

int	2014	2013	2012
Total materials used	1,533,213	1,156,075	1,345,866
of which materials purchased from external suppliers	1,519,370	1,143,012	1,322,252
of which materials obtained from internal sources	13,842	13,064	23,614
of which raw materials	3,508	3,002	1,033
of which associated process materials	1,449,181	1,040,430	1,289,701
of which semi-manufactured goods or parts	76,547	109,920	53,901
of which materials for packaging purposes	3,976	2,724	2,198
Non-renewable materials	129,171	144,525	92,792
Direct materials	76,547	109,920	54,104
Recycled input materials (without upstream chain)	20,945	22,270	24,629
Percentage of recycled input materials	1.37%	1.93%	1.83%
Hazardous substances (HF, Pb, HNO <sub>3</sub> , POCl, Silane, NaOH, HCl, KOH, NH <sub>3</sub> )	8,785	4,862	9,376

T 56

Previous years' data has been slightly adjusted because of an improved database.

The auxiliary materials that we use are subject to quality assessment (e.g. regarding the legal requirements, the technology and the process control), and their quantities are shown in a table. A summary of the assessment is produced at least annually in the analysis of environmental impacts. In addition, goals and measures are defined to reduce the consumption of materials (e.g. reduction in chemical usage in cell production). We comply with the respective legal requirements regarding hazardous substances.

# LAND USE

The amount of land used has an impact on the environment, especially if surfaces are built over or sealed. With the new site in Arnstadt, the group's land use increased, however, hardly noticeable because the site in Camarillo was closed. The sales sites except from Bonn could not be included in any year because the offices are located in rented buildings and their share of land use cannot be determined.

# LAND USE

in m²	2014	2013	2012	2011
Total holding area	1,095,951	906,182	924,694	465,288
of which sealed area	352,717	348,155	337,808	274,595
of which built-over area	249,588	185,980	188,909	85,200

# G4-EN3 ENERGY CONSUMPTION INSIDE THE GROUP

Energy consumption is fuelled by the so called primary sources (gas, oil, diesel, gasoline) and the secondary sources (electricity, local heat). Our energy consumption went up in 2014 as our production increased. While absolute consumption was lower at Hillsboro owing to the discontinuation of wafer production, increased production at Arnstadt and Freiberg resulted in higher absolute electricity consumption. Per unit produced (Wp), however, our electricity consumption decreased due to better capacity utilization and

energy-saving measures. Our gas consumption in Germany fell thanks to the mild winter. Because of major changes affecting production as a whole, it is not currently possible to know how much of this is due to energy-saving measures. The share of renewable sources is the same as in the local energy mix. To convert the secondary energy consumption in indirect primary energy consumption, we used factors from the Ecoinvent database. Data on the energy payback times are in the Management Report. ► Environmental commitment − p. 049

### **ENERGY CONSUMPTION INSIDE THE GROUP**

	2014	2013	2012	2011
Direct primary energy consumption in MJ	196,327,102.3	203,336,522.9	206,086,696.0	204,163,524.2
of which gas	195,654,050.3	202,675,836.7	205,477,229.4	202,945,553.8
of which heating oil	87,644.5	68,724.9	108,513.0	137,048.6
of which diesel	581,712.3	589,721.3	499,161.6	1,074,963.3
of which gasoline	3,695.2	2,240.0	1,792.0	5,958.5
of which other	0.0	0.0	0.0	0.0
Secondary energy consumption in MJ	904,515,835.4	747,828,820.8	1,167,905,779.7	1,524,478,679.7
of which electricity	903,084,536.6	747,828,820.8	1,167,905,779.7	1,523,137,344.9
of which local heat	1,431,298.8	0.0	0.0	1,341,334.8
Indirect primary energy consumption in MJ	2,894,450,673.4	2,393,052,226.6	3,737,298,495.2	4,878,331,775.2
of which electricity	2,889,870,517.2	2,393,052,226.6	3,737,298,495.2	4,874,039,503.8
of which local heat	4,580,156.2	0.0	0.0	4,292,271.4
Total primary energy consumption in MJ, i.e. direct and indirect consumption	3,090,777,775.7	2,596,388,749.5	3,943,385,191.2	5,082,495,299.4
Proportion of renewable energies in the electricity mix	34.5%	35.1%	31.4%	13.1%
Self-generated electricity in kWh (by own PV systems) fed into the grid	10,940,024.1	8,648,224.6	9,869,288.9	9,786,268.3

T 58

# G4-EN4-7 ENERGY CONSUMPTION IN THE VALUE CHAIN

In our life cycle analysis, we calculate total energy consumption in the value chain including all processes and input factors through to the completion of our products, i.e. cradle to gate. This is the cumulated energy demand (CED). This figure indicates how energy-intensive it is to manufacture a product. For this, we use the Simapro software and the Ecoinvent database.

The energy intensity is expressed per production unit, i.e. watt peak. In 2014, it amounted to 20.0 (2013: 18.1)  $MJ_{eq}/V$  Wp groupwide. With a sales volume of 849 (2013: 548) MW, in absolute figures this is equivalent to 16,980 (2013: 9,754)  $TJ_{eq}$ . For further information, please consult the Management Report  $\blacktriangleright$  *Environmental Committment* – *p. 049*. Up to and including 2011, the life cycle analysis could only be calculated for the Freiberg production site.

Because of major changes in production, it is not possible to measure the share of savings due to conservation and efficiency initiatives. In total, the energy requirements of products manufactured by SolarWorld increased compared to the previous year by 1,825.3 kJ/Wp.

# CUMULATIVE ENERGY DEMAND IN MJea / Wp



The cumulative energy demand describes how much energy is needed for the production of a watt peak (Wp).

G 30

# G4-EN9+10 WATER CONSUMPTION

The total water consumption went up in 2014 as our production increased. Due to efficiency increases and saving measures, however, the specific water consumption (i.e. per Wp) was reduced. Beyond that, the consumption was lower because of the discontinuation of wafer production in Hillsboro. ► *Environmental goals − p.207*. Because of major changes affecting production as a whole, it is not currently possible to know how much of this is due to saving measures. The share of reused water is so low because there was no data yet available for the sites Arnstadt and Freiberg. No water sources are significantly affected by SolarWorld.

### WATER CONSUMPTION

	2014	2013	2012	2011
Total water withdrawal in m³	1,538,953.3	1,168,436.7	1,260,643.4	1,466,029.6
of which surface water	922,209.0	577,878.0	541,301.0	676,269.4
of which rainwater	0.0	0.0	0.0	0.0
of which water from municipal water supply		590,558.7	719,342.4	789,260.2
of which ground water	0.0	0.0	0.0	500.0
Water recycled/reused in m³	16,911.7	135,473.5	187,019.8	288,559.8
Water recycled/reused as a percentage of total water withdrawal	1.1%	11.6%	14.8%	19.7%

T 59

Water is obtained in different ways depending on the geographical conditions. Our Freiberg production site obtains raw water for production processes from the Lichtenberg dam reservoir (approx. 30 percent) and Hüttenteich artificial lake (approx. 70 percent). This water then passes through appropriate treatment stages. The different qualities of process water that are obtained are used e.g. for cooling and supplying the production facilities. Water for our production site in Thuringia is piped from a drinking water reservoir some distance away. Changing from the original municipal water supply to the water piped from the dam reservoir reduced the hardness of the raw water, which significantly reduced the load on high-purity water installations. All water used for production at Hillsboro comes from the municipal water supply. The sites do not operate their own pumping systems. The raw water obtained at each site is treated in multiple stages to provide process water. Depending on the application, the raw water is disinfected, filtered and its pH is adjusted. Following this treatment, approx. 35 percent of process water goes through softening, demineralization and disinfection stages to provide completely demineralized water. Process water is mainly (50-80 percent) used to supply production facilities as saw water and for cooling. About 80 percent of saw water is subsequently recycled. The SolarWorld group aims to reduce its water consumption and continuously increase the proportion of reused water.

# G4-EN22 WASTE WATER

One of SolarWorld's most important environmental goals, alongside the careful use of resources, is to keep the environmental impacts of production to a minimum. ► Environmental goals – p. 207 To help achieve this, our inplant wastewater treatment facilities include an extensive controlling and monitoring system with individual flow component collection. Regular evaluations are carried out in respect of the quantities, quality criteria and analyses from our in-plant water and wastewater treatment systems (e.g. temperature, pH, electrical conductivity, adsorbable organically bound halogens (AOX)). The site-specific prescribed limit values for wastewater are monitored internally and by local agencies. Depending on its origin and constituents (e.g. sanitary wastewater, chemically contaminated wastewater), wastewater generated at the various sites is collected and treated in various different streams. These are then discharged directly (waters) or indirectly (local waste water system). So far, we have only little information about the exact processing methods of the local waste water associations.

The absolute amount of waste water went up in 2014 as our production increased. Per unit produced (Wp), however, the specific volume of waste water decreased.

#### WATER DISCHARGE

in m³	2014	2013	2012	2011
Total waste water discharge	1,336,489.2	1,012,247.0	996,849.6	1,404,641.2

T 60

# G4-EN15-21 EMISSIONS

The greenhouse gas emissions went up in 2014 as our production increased. Per unit produced (Wp), however, our greenhouse gas emissions decreased due to better capacity utilization, energy-saving measures and lower CO<sub>2</sub> intensity of the energy used. ► Environmental goals – p. 207 Because of major changes affecting production as a whole, it is not currently possible to know how much of this is due to saving measures. The emissions are identified with help of the GHG Protocol's calculation tools. The error rates that may be caused by the estimates and the calculation tools are not known. Information about the CO<sub>2eq</sub> payback time of our modules can be found in the Management Report. ► Environmental committment – p. 049 As part of the Carbon Disclosure Project, we produce an annual "Programme Response" which is essentially a greenhouse gas report. The most recent report is always available to download from our website.

By participating in the NetJets Climate Initiative, we offset part of our flight emissions (100 percent of our emissions attributable to NetJets planes).

Other indirect emissions from entrepreneurial activities, which are not caused by own or controlled sources (Scope 3 emissions) are calculated based on our life cycle analysis: For purchased goods and services in 2014, we calculated 674,032 (2013: 348,140) tCO<sub>2eq</sub>. For upstream transportation and distribution in 2014, we calculated 20,676 tCO<sub>2eq</sub>. For operational waste we calculated 1,350 (2013: 543) tCO<sub>2eq</sub>.

Apart from the before mentioned greenhouse gases, there are no emissions of other substances harmful to the climate.

#### **GREENHOUSE GAS EMISSIONS**

	2014	2013	2012	2011
Direct and indirect emissions in tCO <sub>2eq</sub> (Scope 1+2, without NetJets)	127,020.8	95,693.0	139,371.8	188,638.5
Direct emissions in tCO <sub>2eq</sub> (Scope 1)	13,161.0	11,611.0	10,728.9	11,753.5
Indirect emissions in tCO <sub>2eq</sub> (Scope 2)	113,859.8	84,082.1	128,643.0	176,884.9
Compensated flight emissions: NetJets Climate Initiative in tCO <sub>2eq</sub> (Scope 1)	243.2	207.7	170.9	340.1

T 61

Ozone-depleting substances are not emitted by SolarWorld. Other air emissions (see substances listed in the table below) relate only to production in the United States. These emissions are mainly due to cell production and increased in 2014 because of higher production volumens. The other air emissions occur in the form of carbon monoxide (CO) and are calculated using calculation tools for air emissions ("air district formulas").

### NO<sub>x</sub>, SO<sub>x</sub> AND OTHER SIGNIFICANT AIR EMISSIONS

int	2014	2013	2012	2011
U.S.				
Hazardous air pollutants	0.00	0.00	0.00	0.24
Nitrogen oxides (NO <sub>x</sub> )	15.81	9.07	5.80	8.74
Fine dust (PM10)	0.99	0.45	0.50	0.53
Persistent organic pollutants	0.00	0.00	0.00	0.00
Sulphur oxides (SO <sub>x</sub> )	0.20	0.27	0.20	0.30
Exhaust gas and fugitive emissions	0.00	0.00	0.00	1.03
Volatile organic components (VOC)	37.24	28.20	27.30	29.33
Other standard air emissions	4.52	3.80	4.00	2.31
T.C2				

Previous years' data has been slightly adjusted because of an improved database.

Various local laws and regulations apply. For example, our German production sites are subject to the German Federal Immission Control Act (Bundes-Immissionsschutzsgesetz, BImSchG). This legislation and accompanying ordinances define detailed requirements for the approval, construction and operation of facilities which are particularly likely to have detrimental environmental impacts on the air, water and soil. Such emissions occur at all production sites in the individual process steps and similar plant groups, in the form of exhaust air/gases. When each facility was commissioned, a comprehensive assessment of all relevant emissions from process exhaust air was carried out. As part of an investigation program, single and repeated measurements were taken during production at various emission source points. Wafer production facilities, for example, are required by law to measure their emissions on a regular basis. Since all facilities are built to the latest standards

and operate in accordance with all legal requirements in the respective countries, there have been no relevant fluctuations in emitted substances and quantities over the period to date. Depending on the materials and hazardous substances present in process exhaust air, the respective types of exhaust air are pre-treated using burner-scrubber and crossflow scrubber systems. Furthermore, in addition to various collecting devices, flow monitors are fitted in the untreated air pipes. Any failure or fault in the exhaust air scrubbers is detected, and results in an emergency shutdown of the facility. Hence it is not possible for untreated exhaust air to be released. Types of process exhaust air which are not treated prior to emission include, for example, air from safety extraction systems which in ordinary operation does not contain any relevant hazardous substances, and exhaust air carrying gaseous hydrogen.

# G4-EN23 WASTE AND RECYCLING

The absolute amount of waste increased in 2014 due to higher production volumes. Per unit produced (Wp), the specific volume of waste decreased compared to the previ-

ous year, but was still above the 2012 value: This is mainly a result of changes in production. ► *Environmental goals* — *p. 207* In the U.S., the recycling share decreased considerably because of the phase-out of the wafer production (the recycling share there had been quite high before).

# **WASTE AND RECYCLING**

int	2014	2013	2012	2011
Total weight of waste	23,020.6	10,013.8	14,814.6	21,826.9
of which hazardous waste	10,037.6	1,292.9	1,352.0	1,487.1
of which recycled or reused	85.4%	0.0 %*	0.0 %*	13.8
of which non-hazardous waste	12,983.0	8,720.9	13,462.6	20,339.8
of which recycled or reused	70.2%	15.8 %*	28.1%*	34.5 %

T 63

Previous years' data has been slightly adjusted because of an improved database. \*For 2013 and 2012, there is no data available on recycling shares for Freiberg.

A breakdown of data by waste disposal method is not yet available for Germany. For the U.S., the data for each disposal method is collected via the service providers:

### WASTE BY DISPOSAL METHOD

in t	2014	2013	2012	2011
U.S.				
Recycled non-hazardous waste	1,669.7	1,205.7	2,753.2	4,816.1
Recycled hazardous waste	0.0	0.0	0.0	0.0
Recovered non-hazardous waste	11.5	139.5	977.7	931.8
Recovered hazardous waste	0.0	0.0	0.0	0.0
Reused non-hazardous waste	4,7	28.8	22.5	0.0
Reused hazardous waste	0.0	0.0	0.0	0.0
Composted non-hazardous waste	0.0	5.8	9.6	6.4
Landfilled non-hazardous waste	2,742.5	2,143.4	2,077.7	3,161.3
Landfilled hazardous waste	0.2	0.2	0.4	0.0
Incinerated non-hazardous waste	0.0	0.0	0.0	0.0
Incinerated hazardous waste	0.1	2.4	9.1	1.5
Waste water treatment (non-hazardous waste)	22.5	405.9	617.5	647.4
7.64				

# G4-EN28 RECYCLING OF USED MODULES AND PACKAGING MATERIALS

The EU directive WEEE (Waste Electrical and Electronic Equipment) regulates the proper recycling of waste electrical and electronic equipment and its financing by manufacturers and distributors at the European level. This law for the disposal of electronic waste, which in the future also defines discarded solar modules as electronic waste. has been revised at the European Level (WEEE2). At the time of implementation, a free return system for solar modules will be created in all European Union countries. Manufacturers and distributors will then share responsibility for accepting and properly disposing of returned solar modules. Activities to implement WEEE2 began in January 2014 and some countries have already ratified WEEE2 into national law. Originally, the European Union required the implementation of WEEE2 into national law by February 2014. However, Germany is so far in delay.

Until now, SolarWorld has committed to the voluntary acceptance of old modules in Germany in order to reflect the importance of environmental protection and in particular the proper disposal of old modules. Since 2013, this voluntary take-back obligation has been expanded to all countries in the European Union. We also have partner companies in the U.S. to carry out recycling.

With the implementation of WEEE2 in the EU member states, the right of return changes fundamentally for consumers. Previously accepted voluntarily by SolarWorld, in the future, old modules will be brought by owners to municipal waste disposal centers or, for large quantities, picked up at the source location. Requests for pickup and disposal pass through a central point, the so-called National Registers. They use a lottery system based on market share

to inform a manufacturer, which is then responsible for the proper disposal of the old modules. According to information from the disposal industry, significantly reduced prices for the recycling of old modules can be expected in the future. This depends primarily on settled legislation, and furthermore on the development of the required disposal technology at certified waste management companies. Certified waste management companies are currently able to recycle old modules in such a way that almost all of the reusable material can be fed into production processes as secondary raw materials.

Owing to the long service life of solar modules, we do not yet have any significant volumes of returned products to report. In contrast, packaging materials are already produced at product delivery.

Despite the increase in production volumes, the amount of packaging materials decreased in 2014 on all categories apart from the use of wood. Our products are packaged to protect them during transportation, not for advertising purposes. In Germany, we have contracted out recycling and reuse operations to Interseroh Dienstleistungs GmbH. The properly reported quantities of authorized packaging materials are determined by Interseroh on the basis of their inspection specification (in particular based on purchasing statistics, invoices and delivery notes) and are attested by the auditor in the following year. These figures do not include materials taken back and recycled via a different collection system or in the framework of our own collection system as well as packaging material which has verifiably been exported. Given the fact that evidence for the passed year always arrives with time lags, the amounts for the Bonn site always correspond to the respective previous year's data. Interseroh sorts and recycles 100 percent of materials by material types.

#### PACKAGING MATERIALS

in t	2014	2013	2012	2011
Carton/cardboard/paper		817.0	1,119.1	1,484.5
Wood	1,229.7	1,081.3	1,096.2	1,190.4
Plastics/polyethylene-film/strapping bands/polystyrene/polyethylene protective corners/polyurethan/stretch film/plastic pallets and barrels	287.2	657.8	414.4	405.5
Other recycling (mixed: hard plastics, metal, compost)	16.3	18.8	87.1	129.7
Total	2,324.6	2,565.6	2,716.8	3,210.1
TAS				

# G4-EN12+24+27 ENVIRONMENTAL IMPACTS

We are not aware of any major impacts on biodiversity in protected areas or in areas of high biodiversity outside protected areas relating to our activities, products or services at our sites. In 2013, renaturation of a service road was to be carried out in the Saxonia industrial area in Freiberg. It was implemented in 2014. We have insured risks resulting from the German Environmental Damage Act (USchadG). This law governs liability claims resulting from damage inflicted on protected species and natural habitats, as well as water and soil damage.

In the reporting period, as in the previous year, there were no significant spills (chemicals, oils, fuels). SolarWorld has insured risks resulting from the German Environmental Liability Act (UHG). This law covers liability claims for bodily injury and damaged property resulting from the spread of harmful substances via the "environmental paths" of soil, water, and air (e.g. health problems in the neighborhood following a fire, death of fish after discharging toxic production waste water, and the associated loss of earnings of a fishery or increased costs at the sewage treatment plant).

The products of SolarWorld have no significant environmental impact in terms of material input, water consumption, emissions, discharge water, noise or waste. The modules can be recycled at the end of their useful lives. Our life cycle analysis shows that we are continuously improving our product, and hence our sales are compensating for ever greater volumes of emissions.

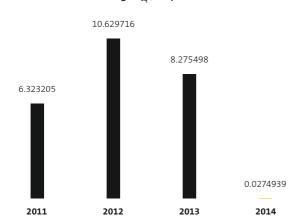
In our life cycle analysis, in addition to the analysis described in the Management Report ► Environmental committment — p. 049, we also examine further environmental impacts resulting from the manufacturing process as a whole, i.e. from the extraction of raw materials. For this, we use Simapro software and the Ecoinvent database. The environmental impact categories are calculated using the CML method. Over the last years, we have achieved improvements on many impacts. Up to and including 2011, the life cycle analysis could only be calculated for the Freiberg production site.

#### ABIOTIC DEPLETION

Abiotic consumption means the consumption of resources that are not renewable, or to be precise are not of plant or animal origin, i.e. they do not grow back. Abiotic resources may be reusable, however, e.g. air and water. Fossil fuels, ores and other mineral raw materials (including sand and salts) are also abiotic resources. Abiotic consumption describes the depletion potential of a resource, i.e. the relationship between global annual consumption and the available supply of the respective resource. Consumption of the various different resources is expressed in terms of the reference resource antimony, as antimony equivalent (Sb<sub>eq</sub>). Only the abiotic consumption of fossil fuels (crude oil, gas, coal) is stated in megajoules (MJ), since these resources – unlike other abiotic resources – are considered to be fully replaceable. For the first time, we list the abiotic consumption of fossil energy sources separately, although without a chart since no data is available for previous years. In 2014, SolarWorld's abiotic consumption of fossil fuels was 5.47 MJ/Wp.

# ABIOTIC DEPLETION IN kg SBeg /kWp

G 31

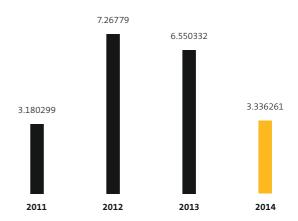


Consumption of abiotic raw materials means the consumption of energy sources, ores and other mineral raw materials, and involves pressures on the environment and changes in the state of the environment.

#### **ACIDIFICATION**

Acidification of soil and water occurs via acid rain, i.e. the conversion of air pollutants (especially sulfur dioxide and nitrogen oxides) into acids, and through ammonia enrichment, for example from excessive fertilizer use. Acid rain attacks buildings and metals, while many plants are harmed by acidic soils. The acidification potential is given in sulfur dioxide equivalent (SO<sub>2ea</sub>).

# ACIDIFICATION IN kg SO<sub>2ea</sub>/kWp



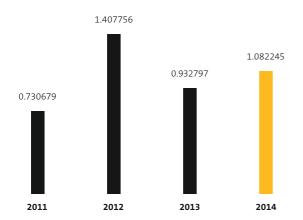
Soil and water are damaged due to acidification, e.g. due to high concentrations of CO<sub>2</sub> or nitrogen, acid rain, or fertilizer.

G 32

#### **EUTROPHICATION**

Euthrophication means nutrient contamination, i.e. the enrichment of soil and water with various nutrients, and is expressed as phosphate equivalent ( $PO_{4--eq}$ ). In water bodies, this can lead to algae growth, reduced oxygen content, and fish mortality. These can also be referred to as "collapse" phenomena. Moreover, leaching of nutrients can cause nitrates to enter the groundwater, but in small quantities these are toxicologically harmless.

# **EUTROPHICATION** IN kg PO<sub>4---eq</sub> /kWp

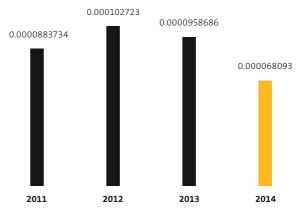


Eutrophication means the enrichment of soil and water by nutrients, especially nitrates and phosphates, resulting in overfertilization which can disturb the species composition.

#### **OZONE LAYER DEPLETION**

Ozone in the stratosphere protects life on Earth, since it absorbs harmful UV radiation. Depletion of the ozone layer is caused mainly by chlorofluorohydrocarbons (CFCs) and nitrogen oxides (NO<sub>x</sub>). A lower concentration of ozone in the upper atmosphere results in a harmful intensity of UV radiation on the ground. Trichlorofluoromethane (CFC-11<sub>eq</sub>) is used as the reference substance.

# **OZONE LAYER DEPLETION** IN kg CFC-11<sub>eq</sub>/kWp



The destruction of the ozone layer is primarily caused by gaseous halogen compounds, resulting in a harmful intensity of ultraviolet (UV) radiation.

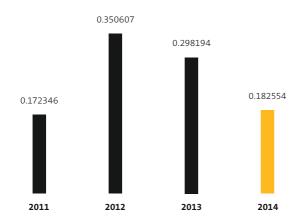
G 33

G 34

### PHOTOCHEMICAL OXIDATION

Photochemical oxidation, also known as summer smog, is caused by reactions between sunlight and nitrogen oxides ( $NO_x$ ) as well as volatile organic compounds (VOC). This creates ground-level ozone, which is a harmful trace gas, in contrast to its protective function in the stratosphere. The concentration of ground-level ozone depends on the weather (high temperatures, low humidity, little wind). The potential for photochemical oxidation is stated as ethylene equivalent ( $C_2H_{4eq}$ ).

# PHOTOCHEMICAL OXIDATION IN kg C<sub>2</sub>H<sub>4</sub> /kWp



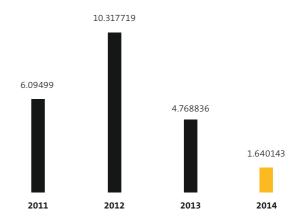
Photochemical oxidation (known as "summer smog") is caused by reactions between nitrogen oxides (NO<sub>x</sub>) and volatile organic compounds (VOC) under UV radiation.

### G 35

# **ECOTOXICITY**

Terrestrial toxicity describes the harmful impact of poisonous substances on flora (from micro-organisms to animals), fauna (plants), and fungi, in and on land. Aquatic toxicity indicates the threat to organisms in oceans and fresh water from toxic substances. Human toxicity specifically indicates the threat to people. Many poisonous substances exist, for example heavy metals, salts and organic compounds. The potential toxicities of the various substances are considered in relation to the reference substance 1,4-Dichlorobenzene  $(1,4\text{-}DB_{\text{eq}}).$ 

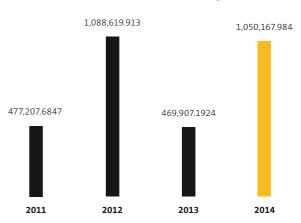
# TERRESTRIAL ECOTOXICITY IN kg 1,4-DB<sub>eq</sub>/kWp



Terrestrial ecotoxicity: Terrestrial ecotoxicity means the harmful impact of numerous poisonous substances (e. g. heavy metals and organic substances) on terrestrial ecosystems.

#### G 36

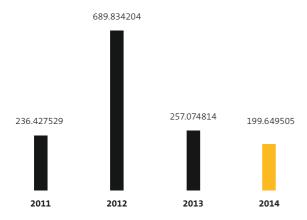
# MARINE AQUATIC ECOTOXICITY IN kg 1,4-DB<sub>eq</sub>/kWp



Marine aquatic ecotoxicity means the harmful impact of numerous poisonous substances (e.g. heavy metals and organic substances) on marine ecosystems.

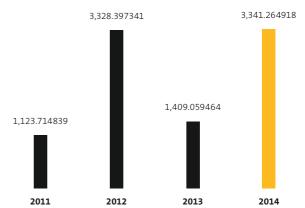
#### G 37

# FRESH WATER AQUATIC ECOTOXICITY IN kg 1,4-DB<sub>ea</sub>/kWp



Fresh water aquatic ecotoxicity means the harmful impact of numerous poisonous substances (e.g. heavy metals and organic substances) on the fresh water ecosystems.

# **HUMAN TOXICITY** IN kg 1,4-DB<sub>eq</sub>/kWp



Human toxicity means the harmful impact of numerous poisonous substances (e.g. heavy metals and organic substances) on the human organism.

G 39

# **TOTAL WORKFORCE**

G 38

In the following, all data is measured and final, unless otherwise indicated. Apart from the number of employees, the data from Arnstadt does not include the month of December.

# G4-10 EMPLOYMENT TYPES AND EMPLOYMENT CONTRACTS

With the acquisition of the Bosch Solar production plant in Arnstadt in March 2014, the SolarWorld group became the largest manufacturer of solar power technology outside of Asia, and employed around 3,400 people at the end of 2014. Active employees and temporary workers both increased in number. SolarWorld uses temporary workers primarily as a way of responding more flexibly to production spikes. This is sustainable insofar as it helps to stabilize the company in the short term and secure other jobs. The proportion of temporary workers should always be carefully monitored, however.

Trends per region and the differing employment conditions and employment contracts are described below. A number of indicators have changed compared with the previous year's report. This is due to a better data basis, and to a more precise calculation method. For example, inaccuracies could arise in previous years because data was collect based on cut-off dates instead of rolling average.

In Germany, the number of employees increased sharply as the Arnstadt site — SolarWorld Industries Thüringen GmbH — was integrated into the group. Excluding the new site, however, the number of employees fell slightly. At our German sites, we employed 40 male and 4 female trainees on the cut-off date. The number of temporary workers increased appreciably in 2014.

The percentage of part-time workers in relation to the total number of active employees in Germany was unchanged compared with the previous year, at 4 percent. Overall, in Germany, the percentage of permanent employees increased slightly from 94 to 97 percent. This is due mainly to the high percentage at SolarWorld Industries Thüringen and to the increased percentage at SolarWorld AG. At Solarparc GmbH, the percentage fell slightly.

In Bonn and Freiberg, every permanent employee has a contractually agreed 40-hour working week, the working time is not recorded in Bonn, but in Freiberg. At Arnstadt, a 38-hour week has been collectively agreed, and working time is recorded electronically. Employees who are not subject to the collective agreement have a 40-hour week.

Full time equivalents are a standardized comparative figure which expresses the employees' working time as an equivalent value of full time employees.

#### EMPLOYMENT TYPES AND CONTRACTS

Germany	2014	2013	2012	2011
Total headcount (incl. temporary workers)	2,641	1,647	1,685	2,158
Total headcount (excl. temporary workers)	2,161	1,447	1,559	1,756
Employees excl. trainees (FTE)	2,089.9	1,372.3	1,462.0	1,654.3
Employees excl. trainees	2,117	1,397	1,486	1,674
of which women	526	303	323	344
of which men	1,591	1,094	1,163	1,330
Part-time workers	83	56	58	55
of which women	67	45	45	43
of which men	16	11	13	12
Employees on permanent contract	2,048	1,307	1,380	1,447
of which women	524	266	293	303
of which men	1,524	1,041	1,087	1,144
Temporary workers (people)	480	200	126	402
of which women	117	47	37	77
of which men	363	153	89	325
Temporary workers (FTE)	333.9	111.4	52.3	217.7
of which women	78.2	27.4	14.2	40.1
of which men	255.7	84.0	38.1	177.6
Temporary workers taken over	17	15	15	123
Trainees	44	50	73	82
of which women	4	5	15	16
of which men	40	45	58	66

It has been possible to exploit synergies as a result of bringing production and sales together at one site in Hillsboro. The number of active employees fell 10 percent to 545. Because of our high production capacity utilization, we had to hire more temporary workers. In percentage terms, temporary workers increased from 19 to 36 percent of all employees. However, we were also able to give permanent jobs to nearly 30 percent of the temporary workers.

In the U.S. the weekly working time is 40 hours. Part-time work is interpreted as a negative signal in the United States, since it can indicate underemployment. There are currently two part-time employees at Hillsboro. For the United States, a breakdown into permanent and fixed-term employment contracts is not possible due to legal differences (weak protection from dismissal, frequent lack of written employment contracts). Hence it is not possible to report any figures here.

2014	2013	2012	2011
741	723	846	1,048
545	607	769	919
544.1	607.0	769.0	919.0
545	607	769	919
147	165	205	236
398	442	564	683
2	0	1	1
1	0	1	0
1	0	0	1
-	-	-	-
-	-	-	-
-	-	-	-
196	116	77	129
69	35	21	29
127	81	56	100
196.0	116.0	77.0	129.0
69.0	35.0	21.0	29.0
127.0	81.0	56.0	100.0
60	33	35	260
0	0	0	0
0	0	0	0
0	0	0	0
	741 545 544.1 545 147 398 2 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	741     723       545     607       544.1     607.0       545     607       147     165       398     442       2     0       1     0       1     0       -     -       -     -       -     -       196     116       69     35       127     81       196.0     116.0       69.0     35.0       127.0     81.0       60     33       0     0       0     0	741         723         846           545         607         769           544.1         607.0         769.0           545         607         769           147         165         205           398         442         564           2         0         1           1         0         0           1         0         0           1         0         0           2         0         1           1         0         0           1         0         0           1         0         0           1         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0

The number of people employed at our sales locations in France, South Africa and Singapore rose from 19 to 25 in 2014. The number of permanent employees increased also, and is now at the same level as in 2011 and 2012. At all

sites, the weekly working time is 40 hours. The number of part-time employees remained nearly constant. No trainees are employed there.

Rest of the world	2014	2013	2012	2011
Total headcount (incl. temporary workers)	25	19	27	27
Total headcount (excl. temporary workers)	24	19	27	27
Employees excl. trainees (FTE)	23.8	18.9	27.0	24.7
Employees excl. trainees	24	19	27	27
of which women	12	10	11	11
of which men	12	9	16	16
Part-time workers	2	1	1	1
of which women	2	1	1	1
of which men	0	0	0	0
Employees on permanent contract	24	11	26	25
of which women	12	6	11	11
of which men	12	5	15	14
Temporary workers (people)	1	0	0	0
of which women	0	0	0	0
of which men	1	0	0	0
Temporary workers (FTE)	1.0	0.0	0.0	0.0
of which women	0.0	0.0	0.0	0.0
of which men	1.0	0.0	0.0	0.0
Temporary workers taken over	0	0	0	0
Trainees	0	0	0	0
of which women	0	0	0	0
of which men	0	0	0	0

T 66

Following an overall drop in employee numbers in 2012 and 2013 in connection with the group's restructuring, our employment figures (including temporary workers and trainees) returned to growth in 2014. Excluding temporary workers and trainees, the number of active employees was up 33 percent. Instrumental in this development was the integration of our new Arnstadt production site into the group structure. Excluding Arnstadt, the total number of

employees (including trainees and temporary workers) increased 5.3 percent; excluding temporary workers and trainees it fell 4.1 percent. More temporary workers are employed in order to cover production peaks. Figures for trainees relate exclusively to our German sites, as there is no dual vocational training system in the United States or at our sales locations in France, South Africa and Singapore.

Group	2014	2013	2012	2011
Total headcount (incl. temporary workers)	3,407	2,389	2,558	3,233
Total headcount (excl. temporary workers)	2,730	2,073	2,355	2,702
Employees excl. trainees (FTE)	2,657.8	1,998.2	2,258.0	2,598
Employees excl. trainees	2,686	2,023	2,282	2,620
of which women	685	478	539	591
of which men	2,001	1,545	1,743	2,029
Part-time workers	87	57	60	57
of which women	70	46	47	44
of which men	17	11	13	13
Employees on permanent contract	2,072	1,318	1,406	1,472
of which women	536	272	304	314
of which men	1,536	1,046	1,102	1,158
Temporary workers (people)	677	316	203	531
of which women	186	82	58	106
of which men	491	234	145	425
Temporary workers (FTE)	530.9	227.4	129,3	346.7
of which women	147.2	62.4	35.2	69.1
of which men	383.7	165.0	94.1	277.6
Temporary workers taken over	77	48	50	383
Trainees	44	50	73	82
of which women	4	5	15	16
of which men	40	45	58	66

T 66

# G4-LA14-16

In the year 2014, there were no grievances about labor practices filed reported, addressed or resolved through formal grievance mechanisms. Our suppliers are not yet systematically screened using criteria for labor practices. Significant actual and potential negative impacts for labor practices in the supply chain are not known to us. The soft-

ware tool we have been testing since December 2014 is to provide information when incidents occur.

For further information about employees, please consult the Management Report.  $\blacktriangleright$  <u>Employees – p. 052</u>  $\blacktriangleright$  <u>Future</u> <u>strategic alignment of the Group – p. 085</u>

# G4-LA1 ATTRITION

This year, we improved the method of calculating the attrition rate and applied it retrospectively back to 2012. The attrition rate relates to active employees, i.e. it does not include temporary workers, trainees or interns, and is now calculated using a rolling average instead of cut-off dates. Following restructuring in past years, the SolarWorld group is now in a good position concerning its employees.

The groupwide attrition rate was 10 (2013: 17) percent. At our German sites, the attrition rate fell for the second year in succession. It fell to 5 (2013: 9) percent. At our U.S. sites, the attrition rate fluctuates only slightly around the 30 percent level, which is normal in this labor market. The attrition rate at sales locations in France, South Africa and Singapore fell steeply to 4 (2013: 43) percent. This large percentage fluctuation is partly due to the low absolute number of employees at these sites.

#### **ATTRITION**

Hirings 2014	Germany	U.S.	ROW	Group
	70	63	3	136
Percentage	71%	68%	50%	69%
Women	29	30	3	62
Percentage	29%	32%	50%	31%
Percentage of newly hired employees 2014				
up to age 30	43 %	41%	50%	42%
aged 31–40	31%	30%	50%	31%
aged 41–50	17%	11%	0%	14%
aged over 50	8%	18%	0%	13%
Percentage of employees leaving 2014				
up to age 30	36%	19%	0%	26%
aged 31–40	36%	27%	100%	31%
aged 41–50	21%	22%	0%	21%
aged over 50	7%	32%	0%	21%
Employees leaving the company 2014				
Voluntarily, men	63	61	0	124
Percentage	55%	38%	0%	45 %
Voluntarily, women	15	31	0	46
Percentage	13%	19%	0%	17%
Termination by employer, men	19	50	0	69
Percentage	17%	31%	0%	25%
Termination by employer, women	17	19	1	37
Percentage	15%	12%	100%	13%
Attrition rate 2014	5%	29%	4%	10%

225

Hirings 2013	Germany	U.S.	ROW	Group
Men	54	38	2	94
Percentage	70%	70%	50%	70%
Women	23	16	2	41
Percentage	30%	30%	50%	30%
Percentage of newly hired employees 2013				
up to age 30	42%	44%	50%	43%
aged 31-40	38%	27%	0%	32%
aged 41–50	13%	16%	50%	15%
aged over 50	8%	13%	0%	10%
Percentage of employees leaving 2013				
up to age 30	33%	29 %	33%	30%
aged 31–40	32%	29%	33%	31%
aged 41–50	23%	22 %	33%	23%
aged over 50	11%	20%	0%	16%
Employees leaving the company 2013				
Voluntarily, men	72	87	5	164
Percentage	49%	39%	56%	44%
Voluntarily, women	21	38	2	61
Percentage	14%	17%	22%	16%
Termination by employer, men	36	80	2	118
Percentage	25 %	36%	22%	31%
Termination by employer, women	17	16	0	33
Percentage	12%	7%	0%	9%
Attrition rate 2013	9%	32%	43%	17%

Hirings 2012	Germany	U.S.	ROW	Group
Men	37	59	3	99
Percentage	70%	66%	60%	67%
Women	16	31	2	49
Percentage	30%	34%	40%	33%
Percentage of newly hired employees 2012				
up to age 30	42%	30%	80%	37%
aged 31–40	29%	29%	20%	29%
aged 41–50	23%	19%	0%	20%
aged over 50	6%	21%	0%	15%
Percentage of employees leaving 2012				
up to age 30	34%	33%	38%	33%
aged 31–40	34%	24%	38%	29%
aged 41–50	23%	20%	25%	22%
aged over 50	9%	23%	0%	16%
Employees leaving the company 2012				
Voluntarily, men	73	103	4	180
Percentage	29%	43%	50%	36%
Voluntarily, women	11	39	3	53
Percentage	4%	16%	38%	11%
Termination by employer, men	146	76	1	223
Percentage	58%	32 %	13%	44%
Termination by employer, women	23	23	0	46
Percentage	9%	10%	0%	9%
Attrition rate 2012	16%	27%	31%	20%

# G4-LA2 BENEFITS TO EMPLOYEES

SolarWorld offers various non-cash benefits to the employees. All employees throughout the group are entitled to take parental leave, the amount varies, however, very much from country to country. ► Parental leave - p. 228 In the U.S., employees who work more than 30 hours per week are entitled to life assurance, health insurance, and disability insurance as company benefit. At our sites in Bonn and Singapore, employees with an unlimited contract are entitled to life assurance, and in France and South Africa to a company health insurance. Company pension schemes are offered at all locations except Singapore. Groupwide, at certain management levels or in certain positions (e.g. field staff), employees have the right to a company car. In Freiberg, there are free shuttle buses to the railway station during the winter months, as well as financial support for lunchtime meals and various healthcare offerings. These services are provided for trainees and temporary workers too. At Solarparc GmbH, employees can obtain a reduced-fare ticket for travel on local public transport. At SolarWorld AG, the transport operator does not offer a reduced-fare ticket at an attractive price, because there is not enough demand from employees. Employees in Germany generally a the right to one day of special leave for special occasions. SolarWorld grants additional special leave in the case of marriage or death (of a spouse or partner, or first-degree relative). In the U.S., we grant wage payments, which are legally not mandatory there, e.g. in case of sickness, bereavements, during holidays or if employees are appointed as jurors. Furthermore, employees receive bonus payments groupwide if they contribute to the corporate success, e.g. with inventions. Beyond that the company covers costs for further education and training. Veterans receive a "Military Pay" in the U.S. Part-time employees have entitlements equivalent to those of full-time employees. Apart from the generally accessible non-cash benefits (e.g. the shuttle service), there are no benefits for temporary workers because they are employed by their employment agency. In so far as there are any entitlements, they exist with respect to the actual employer. We do not grant stock options.

# G4-LA3 PARENTAL LEAVE

According to the German Federal Parental Allowance and Parental Leave Act (Bundeselterngeld- und Elternzeitgesetz, BEEG), in Germany every employee including trainees and interns is entitled to parental leave. Following consultation with the GRI, we calculated the number of people who are entitled to parental leave according to this definition for the first time. This is why the figure has increased sharply compared with the previous year. Both parents can take parental leave simultaneously up to three years. With the employer's consent, it is also possible in principle to split parental leave into two periods of time. Thus, a maximum of twelve months of parental leave can be taken until the child reaches the age of eight. Men are increasingly taking parental leave, usually for two months, to extend the time that the parental allowance is paid to the maximum possible period of 14 months. Legal protection for and entitlements to parental leave are very extensive in Germany, compared with other countries around the world. At our Freiberg site, the number of employees on parental leave fell slightly compared with the previous year. In Bonn, no significant changes were seen. Because of the employees on parental leave at Arnstadt, the total number of employees on parental leave in Germany increased. We cannot make any comparisons with previous years for our new Arnstadt site, as the data is not available to us.

In the United States, parental leave is regulated at federal level (Family and Medical Leave Act, FMLA), and at state level (e.g. Oregon Family Leave Act, OFLA). Various requirements have to be met: depending on the applicable law, employees need to have been employed in the company for varying lengths of time and have served different numbers of working hours. If these conditions are met, employees can take a defined number of weeks (e.g. 12 weeks in Oregon) of parental leave, which depending on the state is unpaid (e.g. in Oregon) or paid. It is not currently possible in the United States to ascertain how many employees are entitled to parental leave. Figures only show how many employees have actually taken parental leave. The number of employees who took parental leave increased slightly

compared with the previous year, but is at a low level. Based on our experience, employees usually return to the company after taking parental leave.

This year, we decided against calculating the return rate and the retention rate, as sufficiently reliable data cannot be obtained. Owing to the various local and national laws,

the expense of collecting data is not justifiable at the present time. The return rate describes the share of employees in the total headcount who returned to work after their parental leave. The retention rate describes the share of employees in the total headcount who returned to work after their parental leave and were still with the company 12 months later.

### **PARENTAL LEAVE**

Germany	2014	2013	2012	2011
Employees entitled to take parental leave	2,240	257	128	125
which of women	563	61	38	28
which of men	1,677	196	90	97
Employees who took parental leave	98	88	69	43
which of women	28	41	34	12
which of men	70	47	35	31
Employees who returned to their job at the end of parental leave	93	58	48	41
which of women	26	15	12	12
which of men	67	43	36	29
Employees who were still employes in the company 12 month after the end of parental leave	187	121	39	13
which of women	57	34	6	7
which of men	130	87	33	6

U.S.	2014	2013	2012	2011
Employees entitled to take parental leave	-	-	-	-
which of women	-	-	-	=
which of men	-	-	-	=
Employees who took parental leave	18	14	25	24
which of women	5	5	6	15
which of men	13	9	19	9
Employees who returned to their job at the end of parental leave	17	14	21	24
which of women	4	5	4	15
which of men	13	9	17	9
Employees who were still employes in the company 12 month after the end of parental leave	12	0	1	0
which of women	5	0	0	0
which of men	7	0	1	0

Rest of the world	2014	2013	2012	2011
Employees entitled to take parental leave	25	0	2	2
which of women	13	0	1	1
which of men	12	0	1	1
Employees who took parental leave	0	0	2	1
which of women	0	0	1	0
which of men	0	0	1	1
Employees who returned to their job at the end of parental leave	0	0	1	1
which of women	0	0	0	0
which of men	0	0	1	1
Employees who were still employes in the company 12 month after the end of parental leave	1	1	0	1
which of women	1	1	0	1
which of men	0	0	0	0

Group	2014	2013	2012	2011
Employees entitled to take parental leave	2,265	257	130	127
which of women	576	61	39	29
which of men	1,689	196	91	98
Employees who took parental leave	116	102	96	68
which of women	33	46	41	27
which of men	83	56	55	41
Employees who returned to their job at the end of parental leave	110	72	70	66
which of women	30	20	16	27
which of men	80	52	54	39
Employees who were still employes in the company 12 month after the end of parental leave	200	122	40	14
which of women	63	35	6	8
which of men	137	87	34	6
7.00				

# G4-11 EMPLOYEES COVERED BY COLLECTIVE BARGAINING AGREEMENTS

In 2014, a joint works council was elected for the companies SolarWorld AG and Solarparc GmbH. The election took place on January 20, 2014. Voter participation was 74.3 percent. The works council comprises five women and four men. Furthermore there are e.g. an economic committee, and a compensation committee. For SolarWorld AG and Solarparc, a joint youth and trainees' representative has been established. At both companies, there is no trade Union present, thus no employees are covered by collective bargaining agreements. Neither of the Bonn-based companies is affiliated to a trade union, so their employees are not covered by collective agreements.

In Freiberg, there is a works council (which currently has 15 members), a representative body for youth and trainees, a representative body for people with severe disabilities, an economic committee, union workplace representatives and a company bargaining agreement concluded with the trade union IG BCE (applicable to SolarWorld Industries Sachsen GmbH and SolarWorld Innovations GmbH). Not all Freiberg employees fall under the arrangements and provisions of the existing company agreement. However, since the works agreements, informal agreements etc. at Freiberg constitute collective bargaining agreements, the collective agreements cover all employees as a matter of principle, with the exception of the company boards (management boards and managing directors) and executives ("leitende Angestellte", see German Works Constitution Act (Betriebsverfassungsgesetz, BetrVG) for definition).

There is a works council at Arnstadt as well. It has 13 members with various committee subdivisions, e.g. an economic committee, a compensation committee, and a work and health committee. Here too, the majority (98 percent) of employees are unionized. A collective agreement has been made with the trade union IG Metall.

As a matter of course, we comply with all legal rules and regulations in this regard (especially with the German Works Constitution Act, BetrVG). Transparent processes for selecting applicants, hiring employees, and their relocation, promotion and dismissal are ensured through statutory, collectively agreed and site-specific rules. It is always our aim to seek cooperation with the works councils, and people who perform tasks for the works councils or for the other bodies mentioned above are given the appropriate time off to do so and provided with the materials and space they need, as well as funding for training, etc. Alongside everyday communication, there is a regular meeting structure for the parties within the company and within the works council bodies. In addition to bulletin boards and email, the works councils can of course also use the intranet as an information medium, e.g. by creating their own pages. Equivalent information and communication possibilities are given to trade unions as well. Other channels for communication between the works councils and employees include consulting hours, works meetings and surveys.

The groupwide works council held its constitutive meeting on December 15, 2014. The groupwide works council comprises six members (two from Freiberg, Arnstadt and Bonn each). They communicate via teleconferencing and regular meetings at the sites.

In the United States our employees are generally not represented by a trade union or a works concil. At our sales location in France, all employees are covered by collective agreements, while at our South Africa and Singapore locations, none are.

### **EMPLOYEES COVERED BY COLLECTIVE BARGAINING AGREEMENTS**

Germany	2014	2013	2012	2011
Employees falling under collective bergaining agreements	1,820	1,120	1,179	1,362
Percentage (in relation to total headcount, excl. temporary workers)	84%	77%	76%	78%
U.S.	2014	2013	2012	2011
Employees falling under collective bergaining agreements	0	0	0	0
Percentage (in relation to total headcount, excl. temporary workers)	0%	0%	0%	0%
Rest of the world	2014	2013	2012	2011
Employees falling under collective bergaining agreements			6	7
Percentage (in relation to total headcount, excl. temporary workers)	21%	26%	22%	26%
Group	2014	2013	2012	2011
Employees falling under collective bergaining agreements	1,820	1,125	1,185	1,369
Percentage (in relation to total headcount, excl. temporary workers)	67%	54%	50%	51%
T 69				

# G4-LA5-8 HEALTH AND SAFETY

As per the Occupational Safety Law (ArbSichG) in Germany, an industrial safety committee is obligatory for companies with more than 20 employees. The top management, experts, occupatonal safety specialists, company physicians, safety officers and the works council are represented. The number of participants varies along the local structures. The committees meet at least once per quarter and debate on occupational safety and accident prevention topics. Furthermore, there are working groups for occupational health

and safety, at our German production sites in Arnstadt and Freiberg. Those are not legally required, but initiated by employees. The working groups do not have a set number of participants, all interested employees can participate.

Occupational health and safety committees in the United States are comprised of at least four members (two selected from the employer and two from the employees). Representatives selected from the employees can belong to any level of the hierarchy. Furthermore, there is an safety leadership team comprising nine members.

#### OCCUPATIONAL SAFETY COMMITTEES

Company	Level / function	Average number of participants	
Solarparc GmbH	managing director, safety officers, company physicians, works council, expert for occupational safety	8	1
SolarWorld AG	board member, safety officers, company physicians, works council, expert for occupational safety	9	1
SolarWorld Industies Sachsen GmbH	managing director, safety officers, company physicians, works council, expert for occupational safety	10	1
SolarWorld Innovations GmbH	managing director, safety officers, company physicians, works council, expert for occupational safety	8	1
SolarWorld Industries Thüringen GmbH	managing director, safety officers, company physicians, works council, expert for occupational safety	5	1
SolarWorld Americas Inc.	All levels, there is no works council	16	0

Safety,

Safety, health and the environment are extremely high priorities for SolarWorld AG and its production sites. As operators of production and research facilities, we set high standards for safety in handling hazardous substances and dealing with possible sources of danger. Their implementation is documented in safety audits. The aim of the safety audit is to identify relevant threats, their likelihood of occurrence and damage potential, and hence assess the risk for the company. These safety concepts are continuously reviewed and form part of internal emergency plans. All employees who are responsible for these environment and safety-related activities receive training. With regard to process engineering, plants are enclosed and equipped with effective, redundant safety precautions (e.g. air extraction systems and containment areas). At our German sites, the legally required information about safety measures and the correct procedure in the event of an incident is provided to neighboring businesses and local residents. Fire and gas warning systems as well as mobile and fixed firefighting systems are installed at all production sites. Because of regulatory requirements, the Arnstadt site has its own fire department, and at Hillsboro there is an on-site emergency response team. There is an emergency team at the Freiberg site to deal with incidents.

The occupational disease rates relate to the overall workforce but do not include self-employed contractors and temporary workers. Those are only considered in the indicators on occupational accidents. Throughout the group, we ensure that working conditions for external contractors are as safe as they are for our employees. 17 (2013: 28) external contractors work at SolarWorld. These external contractors are integrated into our company's organizational structure and are trained correspondingly. The employer is informed by the responsible manager at SolarWorld about health and safety regulations. As in the previous year, one independent contractor works at SolarWorld Innovations GmbH and receives occupational safety training just like the Solar-World employees. As in previous years, there have not been any incidents in 2014. In Arnstadt, Hillsboro, as well as the sales locations in France, South Africa and Singapore, there are no external contractors.

In past years, we reported the standardized injury rate, standardized lost day rate and standardized absentee rate according to GRI. These standardized figures are each based on 200,000 hours worked. This might be a sensible assumption for some countries (e.g. the United States), but not for a group in which the majority of employees work in Germany and have far more days of leave. Instead, we report our actual absentee rate. Moreover, we report our lost day and absentee periods in hours. In Bonn, the planned working time has to be estimated in some cases as the number of days of leave varies, especially among part-time employees. Hence, in all cases, the standard value of 30 days of leave was used.

Occupational accidents are reportable if they involve an inability to work for at least three days. Absence due to accidents relates to the planned working time. The accident statistics also include persons who are performing an activity for us but who are not employees of the SolarWorld group (e.g. student assistants, temporary workers). As in the previous year, there were no work-related fatalities. This also applies to the joint ventures of SolarWorld AG.

### ► Employees – p. 052

The absentee rate is very different between regions, and tends to be highest in Germany. So far, there have not been any significant fluctuations over the years in the absentee rate in the various companies. The sickness rate describes the percentage of employees who reported sick at least once a year. This year, we changed the method of calculating the sickness rate. It is now calculated using the rolling average of employee numbers. Since the number of employees reporting sick is not yet available as a rolling average, the figure for the sickness rate tends to be slightly higher than in reality. The accident rate per thousand employees varies between the different companies. We have not recorded any major fluctuations over the years in Germany or the United States. There were no occupational accidents at our sales locations in France, South Africa and Singapore.

At SolarWorld AG, costs are incurred from a global policy provided by insurers Barmenia, and there are several items relating to health insurance benefits. In 2014, these totaled about € 38,000 (2013: 39,000). These bonuses do not include the bonus for short-term foreign travel (< 90 days). Since it is not clear which locations these should be attributed to, this amount was not included in the summary.

In Bonn, the costs for the cafeteria, for free drinks and fruit, as well as for the masseur, were included. In Freiberg, there were various healthcare offerings, such as health days. In Germany, health costs rose to € 561,000 (2013: 436,000), whereas costs in the U.S. fell to € 521,000 (2013: 591,000). Groupwide, there was no significant change in health and safety costs.

Due to the frequency of work-related illnesses, the highest priority in preventative health care is given to ergonomics, followed by other burdens, for example due to stress, noise, temperature and psychological pressure both in production and in administration. Health and safety at work play an important role for us at the operational level. Many of these topics are subject to co-determination and are therefore regularly discussed with the works council and additional bodies, and measures are jointly decided. Agreements with unions do not exist

# **HEALTH AND SAFETY**

Germany	2014	2013	2012	2011
Planned working time in hours (men, excl. temporary workers)	3,063,883	2,343,935	2,687,585	2,786,925
Planned working time in hours (women, excl. temporary workers)	926,158	557,016	674,548	651,026
Actual hours worked (men, excl. temporary workers)	2,442,025	1,858,160	1,878,148	2,572,959
Actual hours worked (women, excl. temporary workers)	727,849	463,399	567,680	554,168
Actual hours worked (men, incl. temporary workers)	2,933,089	2,114,746	2,593,215	3,142,498
Actual hours worked (women, incl. temporary workers)	874,771	535,688	683,790	741,016
Absentee rate (hours lost/planned working time)	6.7 %	5.9%	5.1%	4.2%
Absence due to sickness in hours (men)	193,512	140,353	132,583	115,808
Absence due to sickness in hours (women)	73,458	29,917	38,727	29,381
Number of employees reporting sick (men)	1,238	972	1,074	1,017
Number of employees reporting sick (women)	469	271	304	249
Sickness rate, total	78.8%	77.0%	81.2 %	72.1%
of which men	72.5%	78.2%	77.9%	80.3%
of which women	27.5%	21.8%	22.1%	19.7%
Number of reportable occupational accidents (men incl. temporary workers)	25	25	30	29
Number of reportable occupational accidents (women incl. temporary workers)	10	5	4	6
Absence due to accidents in hours (men, excl. temporary workers)	5,630	3,720	4,022	4,520
Absence due to accidents in hours (women, excl. temporary workers)	930	168	88	436
Number of fatalities (men, incl. temporary workers)	0	0	0	0
Number of fatalities (women, incl. temporary workers)	0	0	0	0
Accident rate (per 1,000 workers, men and women, incl. temporary workers)	13.8	16.9	16.9	16.2
Accident rate (per 1,000 employees, men, incl. temporary workers)	13.0	17.6	19.3	16.9
Accident rate (per 1,000 employees, women, incl. temporary workers)	16.5	14.2	8.9	13.7
Total direct costs for employee health and safety in the calendar year in €	561,460	436,184	266,541	322,113

U.S.	2014	2013	2012	2011
Planned working time in hours (men, excl. temporary workers)	923,133	1,147,016	1,420,506	1,332,320
Planned working time in hours (women, excl. temporary workers)	352,567	434,762	511,636	460,000
Actual hours worked (men, excl. temporary workers)	818,517	995,235	1,288,655	1,180,551
Actual hours worked (women, excl. temporary workers)	302,757	362,627	440,548	389,817
Actual hours worked (men, incl. temporary workers)	1,024,962	1,122,319	1,485,120	1,313,813
Actual hours worked (women, incl. temporary workers)	398,222	420,304	516,588	435,960
Absentee rate (hours lost/planned working time)	1.6%	1.7%	1.8%	1.6%
Absence due to sickness in hours (men)	14,363	18,865	25,140	20,557
Absence due to sickness in hours (women)	6,549	8,189	9,903	7,361
Number of employees reporting sick (men)	420	522	666	698
Number of employees reporting sick (women)	176	205	250	241
Sickness rate, total	100.0%	100.0%	100.0%	100.0%
of which men	70.5 %	71.8%	72.7%	74.3 %
of which women	29.5%	28.2%	27.3%	25.7%
Number of reportable occupational accidents (men incl. temporary workers)	4	1	1	5
Number of reportable occupational accidents (women incl. temporary workers)	4	1	2	8
Absence due to accidents in hours (men, excl. temporary workers)	217	168	180	2,472
Absence due to accidents in hours (women, excl. temporary workers)	858	984	120	1,792
Number of fatalities (men, incl. temporary workers)	0	0	0	0
Number of fatalities (women, incl. temporary workers)	0	0	0	0
Accident rate (per 1,000 employees, men and women, incl. temporary workers)	11.3	2.6	2.9	12.4
Accident rate (per 1,000 employees, men, incl. temporary workers)	7.9	1.8	1.3	6.4
Accident rate (per 1,000 employees, women, incl. temporary workers)	19.7	4.6	7.4	30.2
Total direct costs for employee health and safety in the calendar year in €	520,591	590,941	546,297	860,984

T 71

Rest of the world	2014	2013	2012	2011
Planned working time in hours (men, excl. temporary workers)	19,680	30,850	39,610	31,653
Planned working time in hours (women, excl. temporary workers)	21,217	23,409	17,811	16,884
Actual hours worked (men, excl. temporary workers)	19,624	28,570	37,362	30,393
Actual hours worked (women, excl. temporary workers)	20,889	21,717	16,891	15,696
Actual hours worked (men, incl. temporary workers)	20,104	28,570	37,362	32,153
Actual hours worked (women, incl. temporary workers)	20,889	21,717	16,891	15,696
Absentee rate (hours lost/planned working time)	0.9 %	1.1%	1.1%	1.2%
Absence due to sickness in hours (men)	56	224	296	338
Absence due to sickness in hours (women)	328	348	328	264
Number of employees reporting sick (men)	4	8	11	9
Number of employees reporting sick (women)	9	10	8	8
Sickness rate, total	53.8%	86.7%	74.0%	100.0%
of which men	30.8%	44.4%	57.9%	52.9%
of which women	69.2%	55.6%	42.1%	47.1%
Number of reportable occupational accidents (men incl. temporary workers)	0	0	0	0
Number of reportable occupational accidents (women incl. temporary workers)	0	0	0	0
Absence due to accidents in hours (men, excl. temporary workers)	0	0	4	0
Absence due to accidents in hours (women, excl. temporary workers)	0	0	0	0
Number of fatalities (men, incl. temporary workers)	0	0	0	0
Number of fatalities (women, incl. temporary workers)	0	0	0	0
Accident rate (per 1,000 employees, men and women, incl. temporary workers)	0.0	0.0	0.0	0.0
Accident rate (per 1,000 employees, men, incl. temporary workers)	0.0	0.0	0.0	0.0
Accident rate (per 1,000 employees, women, incl. temporary workers)	0.0	0.0	0.0	0.0
Total direct costs for employee health and safety in the calendar year in €	8,778	282	133,397	17,198

Group	2014	2013	2012	2011
Planned working time in hours (men, excl. temporary workers)	4,006,696	3,521,801	4,147,701	4,150,898
Planned working time in hours (women, excl. temporary workers)	1,299,942	1,015,187	1,203,995	1,127,910
Actual hours worked (men, excl. temporary workers)	3,280,166	2,881,965	3,204,164	3,783,903
Actual hours worked (women, excl. temporary workers)	1,051,495	847,743	1,025,119	959,681
Actual hours worked (men, incl. temporary workers)	3,978,155	3,265,635	4,115,697	4,488,464
Actual hours worked (women, incl. temporary workers)	1,293,882	977,708	1,217,270	1,192,672
Absentee rate (hours lost/planned working time)	5.4%	4.4%	3.9%	3.3%
Absence due to sickness in hours (men)	207.931	159,441	158,019	136,703
Absence due to sickness in hours (women)	80,335	38,453	48,958	37,006
Number of employees reporting sick (men)	1,662	1,502	1,751	1,724
Number of employees reporting sick (women)	654	486	562	498
Sickness rate, total	84.2%	85.8%	88.6%	100.0%
of which men	71.8%	75.6%	75.7%	77.6%
of which women	28.2%	24.4%	24.3%	22.4%
Number of reportable occupational accidents (men incl. temporary workers)	29	26	31	34
Number of reportable occupational accidents (women incl. temporary workers)	14	6	6	14
Absence due to accidents in hours (men, excl. temporary workers)	5,847	3,888	4,206	6,992
Absence due to accidents in hours (women, excl. temporary workers)	1,788	1,152	208	2,228
Number of fatalities (men, incl. temporary workers)	0	0	0	0
Number of fatalities (women, incl. temporary workers)	0	0	0	0
Accident rate (per 1,000 employees, men and women, incl. temporary workers)	13.2	12.5	12.1	14.8
Accident rate (per 1,000 employees, men, incl. temporary workers)	11.9	13.1	13.3	13.5
Accident rate (per 1,000 employees, women, incl. temporary workers)	17.3	10.4	8.2	19.6
Total direct costs for employee health and safety in the calendar year in €	1,090,829	1,027,407	946,234	1,200,294

### G4-LA9 TRAINING

Because employees receive training on an as-needs basis, fluctuations are usual from year to year. Expenses for training activities are narrowly defined. Only direct costs (e.g. documented by invoices) are included. Costs for training courses offered e.g. by equipment suppliers as part of an entire package are not included. Similarly, no imputed costs for internal training (internal trainers instruct employees) are included, although the number of hours spent on such training courses is recorded. Our temporary workers receive the same training as our employees, wherever needed.

However, the group's figures for training are not yet sufficiently robust. In the United States, training is not documented per employee. Hence it is not possible to make a distinction between male and female or executive and non-executive employees. Furthermore, no data is available for our new Arnstadt site, since no reliable training data was collected there before. Following successful integration into the group structure, we expect to collect complete data for the site in 2015. The highlighted lines contain data from the United States, but not from Arnstadt. For all other statistics, it was not possible to include data from the United States or Arnstadt.

Irrespective of the limitations described above, the method of calculating the proportion of trained employees was improved compared with the previous year. The method is more precise – for example, this year we use the rolling average of employee numbers instead of cut-off dates, so that new and departing employees are taken into account over the course of the year. The figures for 2013 and 2012 have been updated accordingly. Because of better overall data collection, this year, we can report the average number of hours of training. This does not include periods that trainees spend at vocational school. Due to the group's financial position, spending on training fell in absolute and relative terms in 2014, as it did in 2013 and 2012. As before, we are increasingly relying on low-cost, internal learning. We train internal trainers, and are encouraging more selfstudy as well as on-the-job training. These are short-term measures to financially stabilize the company. Long-term, such a development should be monitored to ensure that the innovative power of the company is maintained. In 2014, the absolute number of training hours fell considerably compared with the previous year. This figure fluctuates appreciably from year to year, mainly due to the U.S. data. An error in the data for 2013 has been corrected. In total, exactly 800 training measures were implemented groupwide, somewhat fewer than in the previous year. The number of employees who took part in these training activities also fell. The percentage of employees who received training in 2014 remained practically constant compared with the previous year. It should be noted here that data from the U.S. was submitted, but no data is currently available for Arnstadt. ► Employees - p. 052

### INITIAL AND FURTHER TRAINING FOR EMPLOYEES

Group (excluding Arnstadt)	2014	2013	2012	2011
Total training expenditure (in €)	357,581	414,946	732,179	1,065,040
Training expenditure per employee (in €)	180.14	200.17	310.90	394.17
Number of hours spent for training (total)	28,806	183,957	31,518	373,804
Number of hours spent for training (men in management positions)*	2,521	2,610	4,308	11,320
Number of hours spent for training (women in management positions)*	460	250	384	1,505
Number of hours spent for training (men, non-executive staff)*	16,979	17,357	15,637	42,624
Number of hours spent for training (women, non-executive staff)*	5,493	2,486	4,124	11,844
Number of training programs	800	817	1,010	1,228
Number of employees having completed training programs	1,383	1,484	2,358	1,397
Number of employees having completed training programs (men in management positions)*	143	127	166	150
Number of employees having completed training programs (women in management positions)*	22	19	24	25
Number of employees having completed training programs (men, non-executive staff)*	851	942	996	953
Number of employees having completed training programs (women, non-executive staff)*	243	222	294	268
Percentage of staff undergoing training per year	56.9%	57.8%	77.2%	82.1%
Average number of hours spent for training (men and women)*	15.0	12.7	12.0	-
Average number of hours spent for training (men in management positions)*	8.3	17.3	33.1	-
Average number of hours spent for training (women in management positions)*	18.1	10.6	14.8	-
Average number of hours spent for training (men, non-executive staff)*	14.1	13.5	10.9	-
Average number of hours spent for training (women, non-executive staff)*	16.6	7.4	9.4	-

Previous years' data has been slightly adjusted because of an improved database.

In addition, SolarWorld encourages innovation in the solar sector. We recognize people who have rendered outstanding service to the global use of solar energy through our annual SolarWorld Einstein Award, which has been held since 2005. The engineer, entrepreneur and activist Dr. Ibrahim Togola from Mali received the 2014 SolarWorld Einstein Award. A pioneer of renewable energies in West Africa, for more than 15 years he has implemented renewable energy, climate, water conservation and environmental protection projects

for public, private and non-profit organizations. Every year since 2006, we have distinguished an up and coming scientist with the SolarWorld Junior Einstein Award. The SolarWorld Junior Einstein Award, whose recipient is chosen in an international scientific competition, was presented to Dr. Stefan Braun of the University of Konstanz for his dissertation "Simulation, analysis and production of crystalline Si solar cells with multi-busbar wiring".

<sup>\*</sup> excl. U.S.

### G4-LA12+EC6 DIVERSITY AND EQUAL OPPORTUNITIES

We take account of equal opportunities in recruitment and employment throughout our group (Principle 6, Global Compact). The sole criteria are qualification, work experience and personal aptitude. Recommendations how to achieve diversity and equal opportunities at Solar-World are set out in our Code of Conduct. ► <u>Company's purpose, ethics and integrity − p. 191</u> ► <u>Employees − p. 052</u> ► <u>www.solarworld.de/sustainability</u>

Our reporting is based on the categories of gender, disability and age. We disclose this data not only for governance bodies but also for the entire workforce. In Germany, it is illegal to ask for information about minority group membership (General Equal Treatment Act, AGG). In the U.S., data is only recorded for employees who have actively registered themselves as members of a minority group. We do not document this anymore because the numbers are not indicative.

The Group Management Board consists of five members (three males aged between 40 and 50 years, and one female and one male aged over 50), who do not belong to any minority group. The new Supervisory Board was appointed by the Annual General Meeting in May 2014 and comprises six male board members between 53 and 61 years. The table shows the number of Management Board members and management directors without doublecounting, if individuals fulfill more than one function.

### PROPORTION OF WOMEN

Groupwide, the proportion of women increased slightly to 25 (2013: 23) percent, but the proportion of female executives decreased slightly to 7 (2013: 19) percent. That shows that the company should pay more attention to recruiting and developing women for management positions. Across Germany, women accounted for 25 (2013: 21) percent of all employees, and 17 (2013: 14) percent of executives. At our Freiberg production site, only a few more jobs were eliminated at employee level in 2014. The proportion of women at Freiberg is lower than in the group, at 17 (2013: 17) percent. At Arnstadt, women make up 31 percent of all employees and at Bonn 39 (2013: 41) percent. These figures are very high for a technology company, which suggests gender equality in recruitment. However, the percentage is lower for management positions. At our Bonn site, 27 (2013: 25) percent of management positions were filled by women at the end of 2014. This compares with 10 (2013: 9) percent at Freiberg, and 19 percent at Arnstadt. At our Hillsboro site in the United States, the proportion of women was unchanged at 27 percent, but the proportion of female executives fell to 21 (2013: 30) percent. At our sales locations in France, South Africa and Singapore, 50 percent of all employees and 50 percent of executives are women.

### **DIVERSITY AND EQUAL OPPORTUNITIES**

Germany	2014	2013	2012	2011
Number of Management Board members/managing directors	12	13	14	16
Proportion of women on the Management Board/among managing directors	8%	8%	7%	13%
1st tier of management	11	12	48	46
Proportion of women in the 1st tier of management	9%	8%	15 %	20%
Other tiers of management	249	156	103	139
Proportion of women in other tiers of management	17%	14%	14%	9%
Non-executive staff	1,857	1,229	1,335	1,489
Proportion of women in non-executive positions	26%	23%	23%	22%
Trainees	44	50	73	82
Proportion of female trainees	9%	10%	21%	20%
Total workforce (incl. trainees)	2,161	1,447	1,559	1,756
Overall proportion of women	25%	21%		21%
U.S.	2014	2013	2012	2011
Number of Management Board members/managing directors	5	4		5
Proportion of women on the Management Board/among managing directors	0%	0%	0%	0%
1st tier of management	4	5	20	15
Proportion of women in the 1st tier of management	0%	0%	20%	20%
Other tiers of management	43	76	65	71
Proportion of women in other tiers of management	23%	32%	23%	23%
Non-executive staff	498	526	684	833
Proportion of women in non-executive positions	28%	27%	27%	26%
Trainees	0	0	0	0
Proportion of female trainees	-	-	-	-
Total workforce (incl. trainees)	545	607	769	919
Overall proportion of women	27%	27%	27%	26%
Rest of the world	2014	2013	2012	2011
Number of Management Board members/managing directors	7			6
Proportion of women on the Management Board/among managing directors	0%	20%	17%	17%
1st tier of management	0	0	5	5
Proportion of women in the 1st tier of management	-	=	20%	40%
Other tiers of management	2	4	0	0
Proportion of women in other tiers of management	50%	50%	-	
Non-executive staff	22	15	22	22
Proportion of women in non-executive positions	50%	53 %	46%	41%
Trainees	0	0	0	0
Proportion of female trainees	-	-	-	-
Total workforce (incl. trainees)	24	19	27	27
Overall proportion of women	50%	53%	41%	41%
T73				

Group	2014	2013	2012	2011
Number of Management Board members/managing directors	21	20	23	25
Proportion of women on the Management Board/among managing directors	5%	10%	9%	12%
1st tier of management	15	17	73	66
Proportion of women in the 1st tier of management	7%	6%	16%	21%
Other tiers of management	294	236	168	210
Proportion of women in other tiers of management	18%	20%	17%	14%
Non-executive staff	2,377	1,770	2,041	2,344
Proportion of women in non-executive positions	27%	24%	24%	23%
Trainees	44	50	73	82
Proportion of female trainees	9%	10%	21%	20%
Total workforce (incl. trainees)	2,730	2,073	2,355	2,702
Overall proportion of women	25%	23%	24%	23%

### **WORK FOR PEOPLE WITH DISABILITIES**

SolarWorld is keen to employ people with disabilities. However, our influence on this aspect is limited, since it depends strongly on the applications we receive. Furthermore, it is a challenge to make a production facility entirely accessible for people with disabilities. For these reasons, the percentage of employees with disabilities in the group is still very low, although it has risen slightly to 2.7 (2013: 1.8) percent. To do our part beyond this, at our locations in Arnstadt, Bonn, Freiberg and Hillsboro, we cooperate with organizations that promote the integration of people with disabilities into the workforce. At our production site in Freiberg, we launched a partnership with Diakonie Stadtmission Chemnitz e.V. in April 2011 involving the laser cutting of solar cells and assembly of "Tedlarpads" (yearly order

volume around € 92,000). Starting in 2015, we will partner with two organizations to assemble module frame corners (Diakonisches Werk e.V. and Lebenshilfe e.V. Freiberg). In Bonn, our Marketing department is working together with Bonner Werkstätten Lebenshilfe Bonn gGmbH (yearly order volume around € 58,000) to assemble shipments by hand, roll posters, etc. Additionally, we have a standing order at the Bonn location with the same workshop for assembling the Sunpass system documentation. Our site in Arnstadt collaborates with Christophoruswerk Erfurt gGmbH, where rolls of paper are cut to size for us (yearly order volume around € 11,000). In the U.S., we have a similar cooperation agreement with Edwards Enterprises, whose employees perform such duties as internal mail delivery and light cleaning.

#### **EMPLOYEES WITH DISABILITIES**

Germany	2014	2013	2012	2011
Employees with disabilities	59	33	33	34
Share of employees with disabilities	2.7%	2.3 %	2.1%	1.9 %

2014	2013	2012	2011
15	4	0	4
2.8%	0.7%	0.0%	0.4%
2014	2013	2012	2011
0	0	0	0
0.0%	0.0%	0.0%	0.0%
2014	2013	2012	2011
74	37	33	38
2.7 %	1.8%	1.4%	1.4%
	2014 0 0.0%	15 4 2.8% 0.7%  2014 2013  0 0 0.0% 0.0%  2014 2013  74 37	15 4 0 2.8% 0.7% 0.0%  2014 2013 2012  0 0 0 0.0% 0.0% 0.0%  2014 2013 2012  74 37 33

### **AGE STRUCTURE**

In science, a normal distribution of age groups in a company is generally considered to be advantageous. At SolarWorld, the overall age distribution is balanced, without any major fluctuations compared with the previous year. The two main age groups in the age distribution are 31–40 years and 41–50 years. Groupwide and in Germany, around 60 percent of employees are in these age groups. In the

United States, the picture is even more balanced, while at our sales locations in France, South Africa and Singapore it is much more mixed because of the low numbers of employees. The average age in Germany is 41 (2013: 40) years, in the U.S. it is unchanged at 42 years, and at our sales locations in France, South Africa and Singapore it is 34 (2013: 36) years. The average age groupwide is unchanged 41 years.

### **AGE STRUCTURE**

Germany	2014	2013	2012	2011
Percentage of employees aged 30 or below	15%	18%	21%	28%
Percentage of employees aged 31–40	32%	34%	34%	32%
Percentage of employees aged 41–50	31%	30%	29 %	28%
Percentage of employees aged over 50	22%	18%	15%	12%
Percentage of executives aged 30 or below	4%	6%	5 %	9%
Percentage of executives aged 31–40	39%	40 %	41%	42%
Percentage of executives aged 41–50	44%	45%	43 %	37%
Percentage of executives aged over 50	13%	9%	10%	11%
Percentage of non-executive staff aged 30 or below	16%	20%	23%	30%
Percentage of non-executive staff aged 31–40	31%	34%	33%	31%
Percentage of non-executive staff aged 41–50	29%	27%	28%	27%
Percentage of non-executive staff aged over 50	24%	19%	16%	12%
Average age	41	40	40*	-

<sup>\*</sup> Correction: SolarWorld AG's data was not available.

U.S.	2014	2013	2012	2011
Percentage of employees aged 30 or below	21%	19%	25%	28%
Percentage of employees aged 31-40	25%	26%	29%	30%
Percentage of employees aged 41-50	26%	27%	25%	21%
Percentage of employees aged over 50	28%	29%	22%	22%
Percentage of executives aged 30 or below	0%	1%	0%	4%
Percentage of executives aged 31-40	26%	23%	0%	32%
Percentage of executives aged 41-50	43 %	43%	50%	30%
Percentage of executives aged over 50	32%	32%	50%	34%
Percentage of non-executive staff aged 30 or below	23%	21%	25%	30%
Percentage of non-executive staff aged 31-40	25%	27%	29%	29%
Percentage of non-executive staff aged 41-50	24%	24%	25%	20%
Percentage of non-executive staff aged over 50	28%	28%	22%	21%
Average age	42	42	41	-
Rest of the world	2014	2013	2012	2011
Rest of the world  Percentage of employees aged 30 or below	<b>2014</b> 50%	<b>2013</b>	34%	<b>2011</b> 42%
Percentage of employees aged 30 or below	50%	37%	34%	42 %
Percentage of employees aged 30 or below Percentage of employees aged 31-40	50%	37% 30%	34% 39%	42 % 31 %
Percentage of employees aged 30 or below Percentage of employees aged 31-40 Percentage of employees aged 41-50	50% 29% 13%	37% 30% 28%	34% 39% 23% 4% 20%	42% 31% 22% 4% 40%
Percentage of employees aged 30 or below Percentage of employees aged 31-40 Percentage of employees aged 41-50 Percentage of employees aged over 50	50% 29% 13% 8%	37% 30% 28% 5%	34% 39% 23% 4%	42% 31% 22% 4%
Percentage of employees aged 30 or below  Percentage of employees aged 31-40  Percentage of employees aged 41-50  Percentage of employees aged over 50  Percentage of executives aged 30 or below	50% 29% 13% 8% 0%	37% 30% 28% 5% 0%	34% 39% 23% 4% 20%	42% 31% 22% 4% 40%
Percentage of employees aged 30 or below Percentage of employees aged 31-40 Percentage of employees aged 41-50 Percentage of employees aged over 50 Percentage of executives aged 30 or below Percentage of executives aged 31-40	50% 29% 13% 8% 0% 50%	37% 30% 28% 5% 0% 75%	34% 39% 23% 4% 20% 40%	42% 31% 22% 4% 40% 0% 60%
Percentage of employees aged 30 or below Percentage of employees aged 31-40 Percentage of employees aged 41-50 Percentage of employees aged over 50 Percentage of executives aged 30 or below Percentage of executives aged 31-40 Percentage of executives aged 41-50	50% 29% 13% 8% 0% 50%	37% 30% 28% 5% 0% 75%	34% 39% 23% 4% 20% 40%	42% 31% 22% 4% 40% 0% 60%
Percentage of employees aged 30 or below  Percentage of employees aged 31-40  Percentage of employees aged 41-50  Percentage of employees aged over 50  Percentage of executives aged 30 or below  Percentage of executives aged 31-40  Percentage of executives aged 41-50  Percentage of executives aged over 50  Percentage of of executives aged over 50  Percentage of ono-executive staff aged 30 or below	50% 29% 13% 8% 0% 50% 50%	37% 30% 28% 5% 0% 75% 25%	34% 39% 23% 4% 20% 40% 40%	42% 31% 22% 4% 40% 60% 60% 42% 39%
Percentage of employees aged 30 or below Percentage of employees aged 31-40 Percentage of employees aged 41-50 Percentage of employees aged over 50 Percentage of executives aged 30 or below Percentage of executives aged 31-40 Percentage of executives aged 41-50 Percentage of executives aged over 50	50% 29% 13% 8% 0% 50% 50% 0% 55%	37% 30% 28% 5% 0% 75% 25% 0%	34% 39% 23% 4% 20% 40% 40% 40%	42% 31% 22% 4% 40% 60% 60% 42%
Percentage of employees aged 30 or below Percentage of employees aged 31-40 Percentage of employees aged 41-50 Percentage of employees aged over 50 Percentage of executives aged 30 or below Percentage of executives aged 31-40 Percentage of executives aged 41-50 Percentage of executives aged over 50 Percentage of non-executive staff aged 30 or below Percentage of non-executive staff aged 31-40	50% 29% 13% 8% 0% 50% 50% 0% 55% 27%	37% 30% 28% 5% 0% 75% 25% 0% 55% 27%	34% 39% 23% 4% 20% 40% 40% 40%	42% 31% 22% 4% 40% 0% 60% 0% 42% 39%

Group	2014	2013	2012	2011
Percentage of employees aged 30 or below	16%	19%	23 %	28%
Percentage of employees aged 31-40	31%	32%	32%	31%
Percentage of employees aged 41-50	30%	29%	28%	25%
Percentage of employees aged over 50	23%	21%	17%	16%
Percentage of executives aged 30 or below	4%	4%	5%	8%
Percentage of executives aged 31-40	37%	35 %	39%	38%
Percentage of executives aged 41-50	43%	45 %	44%	36%
Percentage of executives aged over 50	16%	16%	11%	18%
Percentage of non-executive staff aged 30 or below	18%	21%	24%	30%
Percentage of non-executive staff aged 31-40	30%	31%	32%	30%
Percentage of non-executive staff aged 41-50	28%	26%	26%	24%
Percentage of non-executive staff aged over 50	24%	21%	18%	15%
Average age	41	41	40*	-

\*Correction: SolarWorld AG's data was not available.

### LOCALLY HIRED EMPLOYEES

We are an international group and mainly recruit locally at our various sites, although in this matter, there is no company guideline. We try to keep the number of "expatriates" down. Under various nondiscrimination provisions (federal agreement on application of equal opportunities legislation (AGG) in Germany, rules and regulations by the Equal Employment Opportunity Commission (EEOC) and Affirmative

Action in the U.S.) and pursuant to our groupwide Code of Conduct, local candidates must not be given preference nor discriminated against in the recruitment process. For all management levels, we disclose the percentage of locally hired employees. At SolarWorld AG, figures for the expat status of executive staff are estimated because in some cases data on the original place of residence before joining the company are not available.

### LOCALLY BASED HIRING OF EMPLOYEES

	2014	2013	2012	2011
Percentage of locally hired Management Board members and managing directors				
Germany	100%	100%	100%	100%
U.S.	80%	75%	100%	100%
Rest of the world	20%	0%	17%	17%
Percentage of locally hired managers (1st tier)				
Germany	100%	100%	96%	96%
U.S.	75%	80%	90%	100%
Rest of the world	-	-	40%	60%
Percentage of locally hired managers (other tiers)				
Germany	100%	100%	100%	100%
U.S.	98%	99%	100%	100%
Rest of the world	100%	50%	-	-

T 76

Previous years' data has been slightly adjusted because of an improved database.

### G4-51-55+EC3+5+LA13 REMUNERATION

Variable compensation for Management Board members is aligned to the development of certain corporate indicators. A sustainability component with a multi-year basis for assessment complements the system. The compensation of top executives and the presidents of subsidiaries contains an individual variable linked to individual target agreements. All employees receive a variable portion which is calculated based on the consolidated result and the group bonus. The variable portion is, depending on the level within the hierarchy (the higher, the larger) and department area (i.e. higher in Sales) between 5 and 50 percent of the fixed salary. Severance pay in the event of leaving the company is not negotiated in advance (there are no "golden parachutes"). There is no specific compensation component for sustainability aspects as these are supposed to be taken into account via the strategic target of sustainable corporate governance. To avoid conflicts of interest. SolarWorld does not offer any stockbased compensation elements. In this way, we wish to ensure that our top management will not strive for short to mid-term share-price increases but will rather act for the benefit of long-term corporate success. There are no hiring bonuses or payments as recruitment incentive, termination payments or reclamations. Due to the results, the Supervisory Board received no performance-related compensation in 2014. On May 30, 2014, the Annual General Meeting decided the change of the compensation system for the Supervisory Board, with the effect that as of June 1, 2014, there is only a purely fixed compensation for the Supervisory Board. The Management Board and the Supervisory Board do not receive a complementary retirement savings plan. ► Remuneration report – p. 098

The total management compensation per member of the Management Board is capped to 20 times the average employee remuneration. The relationship of the annual remuneration of the highest-paid employee to average annual employee remuneration is reported separately for basic salary and bonus: In Germany, the difference between the highest and the lowest basic salary is € 197,574 (2013: 224,763); the highest compensation is equivalent to 6 (2013: 7) times the average. With regard to bonuses, the differences can be very big, for instance if employees strongly contribute to the business success through inven-

tions/innovation. The difference between the highest and the lowest bonus is  $\in$  40,589 (2013: 232,410); the highest compensation is equivalent to the 4 (2013: 33) times the average. In the U.S., the difference between the highest and lowest basic salaray is  $\in$  103,722 (2013: 98,265); the highest compensation is equivalent to 3 (2013: 3) times the average. For bonuses, the difference is  $\in$  28,860 (2013: 23,717); the highest compensation is equivalent to 13 (2013: 12) times the average.

The SolarWorld group brings together companies from five countries in total. Apart from the global compensation rates, many local circumstances such as sector-specific collective agreements have to be taken into account. To reach comparability beyond country borders for compensation and to offer compensation in line with market standards in comparision with companies from similar industires, we base our compensation decisions on a benchmarking with the global service provider Radford, who provides corresponding comparison values for all target countries.

As a result of the groupwide compensation model, which includes collective agreements, it is ensured that no significant salary differences exist between men and women: In Germany (General Equal Treatment Act, AGG) and the U.S. (Lilly Ledbetter Fair Pay Act), equal rights for men and women are stipulated by law. Differences are much more prevalent in the type of positions filled by women and men. We disclose salary ranges and average salaries by executive and non-executive staff and by gender. The comparison is based on annual gross basic salary including vacation and Christmas pay (for staff paid on an hourly basis, we use the annual (basic) pay, i.e. excluding any shift allowances or bonuses) and all additional bonus payments. Company cars were not included as it was not possible to calculate the monetary benefit. For data privacy reasons, we cannot publish this information for executives in at our sales sites in France, South Africa and Singapore since this group only includes very few employees with the result that the disclosures would be too transparent.

The compensation structures differ substantially between the individual locations. The major differences between Germany and the U.S. may be explained by the strong differences in social security systems. In the U.S., employees with special skills and qualifications and/or a long-standing career with the company receive relatively high salaries, irrespective of whether they hold an executive position or not. Thus, it is entirely possible for employees without managing responsibilities to earn a higher maximum compensation in comparison to employees with managing responsibilities.

In 2014, the variable portion of salary increased, except for employees without managing responsibilities in the U.S. As a rule, we pay salaries above minimum wage at all sites. In Germany, the difference to the minimum wage of  $\in$  8.50 announced for 2015 by the Federal Government is at least  $\in$  0.50 (for auxiliary workers / marginally employed persons) and  $\in$  4.84 (for employees with an unlimited contract). In Hillsboro, the difference between the minimum wage of US\$ 9.10 is US\$ 1.40 for temporary workers and US\$ 1.90 for regular employees.

Benefit plans over and above statutory pension provisions are contribution-based. In Germany, SolarWorld offers a retirement savings program in the form of direct insurance and a pension fund. A final salary-based commitment exists in only two cases. Employees who were employed at the former Munich site are entitled to direct pension commitments (final salary-based pension commitments). In the course of a company merger, SolarWorld Industries Thüringen GmbH, Arnstadt, overtook further performance oriented pension schemes in the first quarter of 2014. In 2014, these obligations totaled 10,848 (2013: 8,772) k€.

► 2.20 Retirement benefits – p. 136

### **SALARY STRUCTURE**

in€	2014 2013				2012				
Germany	Lower Limit	Upper Limit	Average	Lower	Upper limit	Average	Lower	Upper limit	Average
Executives (excl. managing directors and Management Board members)									
Basic salary: range and average (men)	28,682	237,308	65,003	26,369	259,745	55,174	26,369	215,066	53,390
Basic salary: range and average (women)	33,504	87,014	60,695	30,594	120,000	53,207	29,253	125,000	53,384
Bonuses: range and average (men)	0	54,000	14,795	0	34,093	10,356	234	35,780	16,655
Bonuses: range and average (women)	0	22,344	6,000	0	18,098	7,096	0	31,771	12,399
Basic salary: ratio women to men	1.16:1	0.36:1	0.93:1	1.16:1	0.46:1	0.96:1	1.10:1	0.58:1	0.99:1
Bonuses: ratio women to men	-	0.41:1	0.40:1	-	0.53:1	0.68:1	0.00:1	0.88:1	0.74:1
Non-executive staff									
Basic salary: range and average (men)	25,500	140,000	35,166	13,158	95,000	31,768	25,500	100,000	31,822
Basic salary: range and average (women)	24,000	66,636	39,508	24,000	67,728	33,925	23,750	70,000	33,590
Bonuses: range and average (men)	0	34,000	15,215	0	239,677	7,468	480	51,174	12,799
Bonuses: range and average (women)	0	14,202	8,315	0	13,499	4,999	1,000	29,757	8,351
Basic salary: ratio women to men	0.94:1	0.47:1	1.12:1	1.82:1	0.71:1	1.06:1	0.93:1	0.70:1	1.05:1
Bonuses: ratio women to men	=	0.41:1	0.54:1	-	0.05:1	0.66:1	2.08:1	0.58:1	0.65:1

in€		2014 2013			2013			2012	
U.S.	Lower Limit	Upper Limit	Average	Lower	Upper limit	Average	Lower	Upper limit	Average
Executives (excl. managing directors and Management Board members)									
Basic salary: range and average (men)	40,027	146,253	87,339	37,813	139,908	82,074	34,020	116,802	72,854
Basic salary: range and average (women)	62,273	107,827	89,276	31,763	98,314	68,779	33,075	132,300	75,972
Bonuses: range and average (men)	667	31,259	10,148	0	25,946	7,559	676	26,912	4,583
Bonuses: range and average (women)	4,231	10,731	6,400	671	13,542	5,631	0	14,955	3,117
Basic salary: ratio women to men	1.55:1	0.73:1	1.02:1	0.83:1	0.70:1	0.83:1	0.97:1	1.13:1	1.04:1
Bonuses: ratio women to men	6.34:1	0.34:1	0.63:1	=	0.52:1	0.74:1	0.00:1	0.55:1	0.68:1
Non-executive staff									
Basic salary: range and average (men)	18,388	102,069	40,246	18,192	98,314	37,826	18,313	98,280	36,487
Basic salary: range and average (women)	18,014	88,521	33,040	18,256	98,314	31,102	18,059	98,280	31,394
Bonuses: range and average (men)	66	25,164	2,032	76	16,750	1,667	0	12,475	708
Bonuses: range and average (women)	77	6,240	983	76	7,239	1,030	0	6,771	387
Basic salary: ratio women to men	0.97:1	0.86:1	0.82:1	1.00:1	1.00:1	0.82:1	0.98:1	1.00:1	0.86:1
Bonuses: ratio women to men	1.16:1	0.24:1	0.48:1	1.00:1	0.43:1	0.61:1	-	0.54:1	0.54:1

2014			2014 2013			2013		2012		
Lower Limit	Upper Limit	Average	Lower limit	Upper limit	Average	Lower limit	Upper limit	Average		
13,668	101,530	40,433	10,380	47,500	26,802	14,500	57,854	23,542		
9,107	43,302	25,376	9,309	41,046	19,186	11,277	41,047	26,442		
723	25,382	9,766	961	12,500	5,165	0	24,877	2,843		
2,000	10,358	5,547	961	3,462	1,846	0	13,993	1,367		
0.66:1	0.42:1	0.62:1	0.89:1	0.86:1	0.71:1	0.77:1	0.70:1	1.12:1		
2.76:1	0.40:1	0.56:1	1.00:1	0.27:1	0.35:1	-	0.56:1	0.48:1		
	13,668 9,107 723 2,000 0.66:1	Lower Limit Upper Limit 13,668 101,530 9,107 43,302 723 25,382 2,000 10,358 0.66:1 0.42:1	Lower Limit Upper Limit 13,668 101,530 40,433 9,107 43,302 25,376 723 25,382 9,766 2,000 10,358 5,547 0.66:1 0.42:1 0.62:1	Lower Limit         Upper Limit         Average limit           13,668         101,530         40,433         10,380           9,107         43,302         25,376         9,309           723         25,382         9,766         961           2,000         10,358         5,547         961           0.66:1         0.42:1         0.62:1         0.89:1	Lower Limit         Upper Limit         Average limit         Lower limit         Upper limit           13,668         101,530         40,433         10,380         47,500           9,107         43,302         25,376         9,309         41,046           723         25,382         9,766         961         12,500           2,000         10,358         5,547         961         3,462           0.66:1         0.42:1         0.62:1         0.89:1         0.86:1	Lower Limit         Upper Limit         Average Lower limit         Upper limit         Average limit           13,668         101,530         40,433         10,380         47,500         26,802           9,107         43,302         25,376         9,309         41,046         19,186           723         25,382         9,766         961         12,500         5,165           2,000         10,358         5,547         961         3,462         1,846           0.66:1         0.42:1         0.62:1         0.89:1         0.86:1         0.71:1	Lower Limit         Upper Limit         Average Lower limit         Upper limit         Average limit         Lower limit         Upper limit         Average limit         Lower limit           13,668         101,530         40,433         10,380         47,500         26,802         14,500           9,107         43,302         25,376         9,309         41,046         19,186         11,277           723         25,382         9,766         961         12,500         5,165         0           2,000         10,358         5,547         961         3,462         1,846         0           0.66:1         0.42:1         0.62:1         0.89:1         0.86:1         0.71:1         0.77:1	Lower Limit         Upper Limit         Average Lower limit         Upper limit         Average limit         Lower limit         Upper limit         Lower limit         Upper limit<		

For data protection reasons, we are not allowed to disclose the salaries for executives.

### RESPONSIBILITY FOR CUSTOMERS AND PRODUCTS

#### G4-PR1-9

We conduct annual surveys of customer satisfaction with wholesalers and installers. 86 (2013: 94) percent of our customers are satisfied or very satisfied. We received the hightest satisfaction value in "product quality": 100 percent.

We source components from reputable manufacturers. The safety of the products we deliver is ensured by our quality management. Extensive product information is provided in the form of data sheets and assembly instructions. Naturally, all SolarWorld solar power modules comply with the international requirements for product safety and user friendliness. Be it a listing along the North American standard UL1703 or a certification in accordance with the relevant standards IEC 61215 and IEC 61730. As one of the few products in the German market, the SolarWorld solar

power module together with the in house rack system bears the GS sign ("proved safe") of the VDE (Association for Electrical Technology). The power of SolarWorld's modules has been tested by TÜV Rheinland: The "Power controlled" inspection mark documents that the rated power is adhered to and monitored by solar experts from this independent inspection service provider on a voluntary basis. SolarWorld is the first German manufacturer certified on the basis of such inspections. Our battery systems are accompanied by a document of the manufacturer, which contains information about the hazardous substances as well as the handling of the battery.

The following information is included in our product labeling of all our products (100 percent):

### PRODUCT INFORMATION

Criteria	Procedure	Labeling of final products (module/system)
Origin of product components	In assessing the environmental impact, we also include the upstream process. We also assess our suppliers as required under ISO 9001. The same criteria are applied in selecting suppliers of consumables and raw materials. There is also a product information sheet for our cells.	The country of manufacture is indicated, but not the origin of individual components.
Composition	Not compulsory	Not indicated
Safe use of product	Our outgoing goods controls provide an additional check to ensure that no defective products are shipped, only products meeting customer requirements. In most cases, quality assurance agreements are additionally concluded with customers.	A warning about electrical danger is included. A user information sheet (assembly instructions) is included in deliveries.
Product disposal	Recycling of input products and final products is covered in accordance with local rules. It is always our goal to avoid producing defective goods.	Our products are fully recyclable and can be returned to SolarWorld for this purpose. This is now also indicated on the product.

Potential impacts on health and safety are assessed in advance through certification for 100 percent of the products we manufacture in order to identify potential for improvement. In 2014, as well as in previous years, there were no cases of non-compliance with regulations and voluntary rules regarding the impact of products and services on health and safety. Furthermore, there were no cases of non-observation of regulations or voluntary rules of conduct on the information/labeling of products and services, no sanctions for non-compliance regarding products and services, and no breaches of customer privacy or losses of customers data. We do not distribute any products that are prohibted to be sold in certain markets or are called into question by stakeholders/in the public debate.

In 2014, we voluntarily issued a recall relating to a previous version of a solar-panel instruction manual. There were no problems of any kind relating to our products. But the instruction manual called for a part for which a designation code was ambiguous, opening up the unlikely possibility that an improper grounding lug might be used. Even if chances of an actual problem were extremely remote, we wanted to make sure that no installation using an improper grounding lug was in place to pose a safety risk. We uncovered no improperly installed systems.

All communication activities of SolarWorld are medium or long-term initiatives that are designed to make solar power technology an integral part of a sustainable energy production worldwide. This implies that customer awareness should be raised of a thoughtful, resource-friendly approach for the climate and the environment.

In 2014, we focused on three topics: first, the offer of complete systems at a fixed price to end-customers for a quick and economic installation of solar systems, second, the presentation and marketing of the lithium iron phosphate battery storage system Sunpac LiOn, as well as third, the presentation of the energy management platform Suntrol MyHome, which make the targeted use of solar power in the house possible.

There are no written advertising-related rules of conduct or ESG (environment, social, governance) standards specified for the entire organization. The SolarWorld group adheres to the law in its advertising and is guided by the SolarWorld values, 

www.solarworld.de/sustainability, e.g. fair competition, no discrimination. Our sponsoring activities are always transparent.

### **COMPLIANCE**

### G4-HR1-12 EMPLOYEE AND HUMAN RIGHTS

According to the assessment of the HR departments of the individual sites, no business operations have been identified where freedom of association and the right to engage in collective bargaining could be significantly jeopardized. However, so far no formal procedure to identify such business operations has been established. We cultivate open and direct relations with employees, which means that any such risk should be notified to us. The legislation in Germany and the U.S. protects employees against any restrictions of their rights. At the site in South Africa, we currently has seven employees, the one in France eight, and the one in Singapore nine employees, which favors strong participation of the individual employees in the decisions of management. Up to now, specific trainings on human rights have not been conducted. In 2014, there were no Compliance cases regarding human rights.

Our business activities do not involve a significant risk of incidents of child labor or work by minors under dangerous conditions, because the material sites are located in Germany and the U.S. There is also no significant risk of forced or compulsory labor. We do not use prison labor. Our processes are very transparent and are supervised via documentation in the work schedules. We also consider these aspects in our regular supplier audits. But our purchasing strategy means that our value chain has an international orientation, which tends to pose this risk. Significant impacts are, however, not known. Since December 2014, we have been testing a software tool for monitoring our supply chain. We also emphatically oppose child, forced and compulsory labor in our Code of Conduct and in our Supplier Code of Conduct. Our Supplier Code of Conduct is based on the Social Accountability International standard (SA 8000) and forms part of contracts. ► Company's purpose, ethics and integrity -p. 191 There was no systematic screening of our suppliers and contractors on human rights aspects in the past, nor is this set out in agreements. In the past, this has not been a high priority because our suppliers and contractors were mainly based in Europe and the U.S. where strict national standards apply.

In the reporting period, there were no significant investment agreements which were decisive in terms of volume or strategic importance for the company. As a result, there were no human rights clauses associated with such agreements. In 2014, as in previous years, no complaints were received relating to human rights. Moreover, changes relating to the protection of employee and human rights were not registered. Processes have not been subject to studies and impact analysis regarding the respect for human rights. Up to now, we do not exercise influence on the rights of indigenous people. In the U.S., one case of discrimination was identified.

# G4-S03-11 ANTI-CORRUPTION EFFORTS, POLITICS AND IMPACT ON SOCIETY

Responsibility for corruption risks rests in the hands of the Management Board and Presidents/Managing Directors. To support these efforts, we have a compliance organization and corporate audit in place. ► Corporate Governance -Compliance Management System – p. 027 ► Company's purpose, ethics and integrity - p. 191 The Corporate Audit conducted a total of three audits in 2014. Out of those, one audits concerned the Bonn site, one the Freiberg site, and one the Singapore sales site. Auditing priorities such as correctness, compliance as well as internal procurement and approval processes were comprehensively audited. Thus, broad areas of the group were also audited. We define as an auditable unit a company, a department, a legal person or a process. We audited four units in respect to various risks, including compliance risks. In 2014, we identified a total of 65 auditable units, of which six percent were audited. Beyond this, the Corporate Audit was largely concerned with internal consultation projects in 2014.

► Internal control system – p. 027

We also record the proportion of our shipments volume in countries that have a corruption index < 60 determined by Transparency International. For further information, please consult the Management Report. ► KPIs and KPNs for ESG — p. 254 ► Company's purpose, ethics and integrity — p. 191 ► Individual risks — p. 070

### **CORRUPTION RISKS**

	2014	2013	2012	2011
Module corruption index	13.5%	23.4%	20.8%	15.1%
Wafer corruption index	5.9%	86.6%	90.5 %	71.3 %
Total corruption index	13.3%	44.5%	25.6%	54.3%

T 79

The Compliance Committee performes a continuous risk assessment for the group. As a result of the SolarWorld's business operations, the main risk areas are: 1. Capital market compliance, 2. Corruption/Anti-Trust Laws, 3. Export controls, 4. Data privacy & IT security. Trainings are conducted yearly and throughout the group in these risk areas. All statements made for compliance therefore also apply to the topic of corruption prevention. The entire Management Board is informed about Compliance (including Anti-Corruption). No political donations are made. In 2014, no cases of corruption were found, and there are no ongoing or completed processes. There were also no complaints lodged. There were also no complaints regarding anti-competitive behavior.

No major cases of non-compliance with laws and regulations were determined in the reporting period or the previous years, nor were any out-of-court arbitration proceedings held. In early 2014, we received two fines from the German Federal Financial Supervisory Authority (BaFin) due to alleged infringement of capital market law disclosure obligations, both in the amount of € 25,000.

No complaints were lodged, processed or solved through formal complaint procedures regarding social impact. Our suppliers are not yet systematically assessed on these impacts. Significant impacts on the society in the supply chain are not known to us. The software tool which has been tested since December 2014 is to provide information on potential cases. Statistics on the percentage of employees informed and trained are not yet available. All main suppliers have been informed about the Suppliers' Code of Conduct. ► Company's purpose, ethics and integrity − p. 191

### G4-S01+2 LOCAL COMMUNITIES

The activities of SolarWorld Solicium GmbH are accompanied by stakeholder processes. The city council discussed with SolarWorld to determine the most environmentally friendly means of transport. The permit applications will contain plans for renaturation. No details are yet available. Critical voices have not yet reached us. On the contrary: Residents are very happy about the creation of jobs in their region. Besides this, no measures have been implemented for the inclusion of local communities, impact estimates or support programs. Furthermore, no business activities with significant actual or potential negative impact on local communities were identified.

### **KPIS & KPNS FOR ESG**

The European Federation of Financial Analysts Societies (EFFAS) Commission on ESG and the German Society of Investment Professionals (DVFA) Commission on Non-Financials (CNF) publish the "KPIs and KPNs for ESG 3.0": Key Performance Indicators and Narratives on the integration of

extra- and non-financial performance indicators pertaining to ESG (Environmental, Social, Governance), sustainability, corporate governance and risk management for integration into classical company rating and investment decisions. We have been reporting on the basis of these criteria since 2008.

### PERFORMANCE INDICATORS AND NARRATIVES (SECTOR: RENEWABLE ENERGY EQUIPMENT)

for Environmental, Social, Governance (ESG) of EFFAS/DVFA

Indicator	Name	Description	2015	2014	2013	2012	2011	Comment
E01-01 (Scope I)	Energy efficiency	Total energy consumption (in primary GJ)	<u> </u>	3,090,778	2,596,389	3,943,385	5,082,495	We expect growth (under-proportionate to production increase) in 2015. ► <u>G4-EN4 - p. 210</u>
E02-01 (Scope I)	GHG emis- sions	Total GHG emissions (in tCO <sub>2eq</sub> )	1	127,021	95,693	139,372	188,639	We expect growth (under-proportionate to production increase) in 2015. ► G4-EN16 – p. 212
S01-01 (Scope I)	Attrition	Share of employees leaving the company per year	$\leftarrow \rightarrow$	10%	17%	20%	16%	No distinction is made between fulltime and part time work. ► <u>G4-LA12 – p. 241</u>
S02-02 (Scope I)	Training and professional development/qualification	Average training expendi- ture/employee (in €)	$\leftrightarrow$	180	200	311	394	► <u>G4-LA9 – p. 239</u>
S03-01 (Scope I)	Age structure of the work- force	In 10-year steps	$\longleftrightarrow$	≤31:16%, 31-41:31%, 41-50:31%, >50:23%	≤31: 19%, 31-41: 32%, 41-50: 29%, >50: 21%	≤30:23%, 30-40:33%, 40-50:28%, >50:17%	≤31: 28%, 31-41: 31%, 41-50: 25%, >50: 16%	► <u>G4-LA12 – p. 241</u>
S08-01 (Scope I)	Pay	Total amount of all bonus payments (in m€)	<b>↑</b>	30	12	19	5	We do not grant stock options. Data in 2011: only profit-oriented salary model. ► G4-LA13 – p. 247
S08-02 (Scope I)	Pay	Number of FTE who receive 90 % of the bonus payments	On this	topic, we do not	have any data y	et, as our databa	se does not allov	w for such analysis.
S08-03 (Scope I)	Pay	Consideration of the ESG performance in the target agreements	the bas		rds sustainable c			ts but is included via lity is one of the pillars
V01-01 (Scope I)	Litigation risks	Expenditures and fines for lawsuits and court cases regarding anti-competitive behavior, Anti-Trust, monopoly behavior (in m€)	n.s.	n.s.	0.4	3	1	In the context of the trade case and complaints, Solar-World invested the indicated sum in the U.S. and the EU. For 2014, the sum cannot be disclosed, because it is considered confidential in the course of the litigation in the U.S.
V02-01 (Scope I)	Corruption	Share of business activity in regions with a corruption index of less than 60	$\leftrightarrow$	13%	45%	26%	54%	Since 2009, data for wafers and modules, previously only for modules ► <u>G4-SO2 – p. 253</u>

Indicator	Name	Description	2015	2014	2013	2012	2011	Comment
V03-02 (Scope I)	Earnings from new products	Earnings share from products with life cycles of less than 12 months	$\longleftrightarrow$	53%	60%	55%	40%	Specifications relate to modules, rack system and complete systems. Estimates for previous years were based on data provided by SolarWorld AG and did not include products to which only minor modifications have been made.
V04-01 (Scope I)	Innovation	Total R&D expenditures (in m€)	$\leftarrow \rightarrow$	29.0	26.5	49.1	27.2	► Innovation report – p. 058
V04-12 (Scope I)	Innovation	Total investment in research on ESG relevant aspects	100%	100%	100%	100%	100%	Our entire business (solar energy) is ESG relevant.
E23-02 (Scope II)	Production loss	Monetary effects of production loss due to material bottlenecks (in €)	$\leftarrow \rightarrow$	0	0	0	0	► <u>G4-DMA – p. 187</u>
E28-01 (Scope II)	Water consumption	Total water take-out (in m³)	<b>↑</b>	1,538,953	1,168,437	1,260,643	1,466,030	► G4-EN8 – p. 210
E33-01 (Scope II)	Environ- mental compatibility	Share of DIN ISO 14001 certified locations (weighted by average capacity)	$\leftarrow \rightarrow$	100%	100%	100%	100%	The indicator can decrease temporarily if new capacities are ramped up, which have not yet been certified at the cut-off date.
G01-01 (Scope II)	Donations to political parties	Donations to political parties (in k€)	0	0	0	0	0	Since 2010, we have not made any political donations.
S11-01 (Scope II)	Relocation of work places due to re- structuring	Total costs of relocation (in k€) including compensation payments, severance pay, outplacement, recruitments, training, consulting	$\leftarrow \rightarrow$	294	112	125	766	
V06-01 (Scope II)	Customer satisfaction with SolarWorld	Share of satisfied customers among all respondents	<b>↑</b>	86%	94%	94%	94%	Aggregate figure (Trade)
V10-03 (Scope II)	Effects of subsidies	Share of business activity in markets with feed-in tariff or regulated pricing	$\leftarrow \rightarrow$	100%	100%	100%	100%	The shipment share in mar- kets without feed-in tariff or regulated pricing is still below 1%.
V13-01 (Scope II)	Utilization	Capacity utilization in relation to the nominal capacity (in percent)			lisclosed. But we o			
V28-01 (Scope II)	Supply chain	Total number of suppliers	$\leftarrow \rightarrow$	ca. 180	ca. 180	ca. 195	ca. 200	Bill of Material
V28-02 (Scope II)	Supply chain	Share (volume) of the 3 largest external suppliers	$\leftarrow \rightarrow$	17%	13%	13%	> 15 %	
V28-03 (Scope II)	Supply chain	Sales share of suppliers (in %)	$\leftarrow \rightarrow$	ca. 60%	ca. 60 %	ca. 60%	ca. 60%	Direct material ► Procurement – p. 202
E17-35 (Scope III)	Supply bottlenecks	Sales share of products containing Indium	Not use	ed		•		
E17-36 (Scope III)	Supply bottlenecks	Total procurement volume Indium	Not use	ed	•	•		

Indicator	Name	Description	2015	2014	2013	2012	2011	Comment
E22-01 (Scope III)	Raw material	Covered demand (in days) of A (B, C, D) materials	Through	h long-time cont	racts, we secure ap	pprox. 80 % of th	e required cap	acities.
E23-01 (Scope III)	Production loss	Production loss, i.e. difference between planned and actual production, due to material bottlenecks (in %)	$\leftarrow \rightarrow$	0%	0%	0%	0%	
E28-02 (Scope III)	Water consumption	Water (in m³/MWp)	<b>\</b>	1,908	2,958	2,253	-	► Environmental Goals – p. 207
E28-03 (Scope III)	Water consumption	Ground water consumption (in m³)	$\leftarrow \rightarrow$	0	0	0	500	
E28-04 (Scope III)	Water consumption	Waste water discharge (in m³)	<b>↑</b>	1,336,489	1,012,247	996,850	1,404,641	► <u>G4-EN22 – p. 212</u>
V05-01 (Scope III)	Customer loyalty	Share of new customers (Authorized Installers)	$\leftrightarrow$	30% (direct cus- tomers), 18% (authorized installers)	39 % (direct customers), 35 % (authorized installers)	64%	20%	The indicator across the group refers to module and system customers. Up until 2011 the information is estimated based on the data of SolarWorld AG. As of 2013, we differentiate between direct customers and authorized installers.
V05-03 (Scope III)	Customer loyalty	Market share (total)	<b>↑</b>	2%	2%	2%	4%	
V28-04 (Scope III)	Supply chain	Maintenance of ESG stan- dards by suppliers	All main suppliers are audited along QHSE criteria every two to three years. The Supplier's Code of Conduct is a contract component. ► Procurement – p. 202					
V28-05 (Scope III)	Supply chain	Incentives for procurement to select suppliers who are well prepared in terms of ESG even though they may charge higher prices	SolarWorld's minimum standards have to be followed. Our suppliers' sustainability performance is systematically incorporated into their assessment. ► <u>Procurement – p. 202</u>					

### GLOBAL REPORTING INITIATIVE (CATEGORIZATION AND INDEX)

### GRI INDEX "IN ACCORDANCE" WITH GRI G4 GUIDELINES - COMPREHENSIVE

Audit review by the BDO AG, Wirtschaftsprüfungsgesellschaft

General Stan	dard Disclosures			
Standard	Description	Cross-reference/Direct answer	Omissions	External Assurance
Strategy and	Analys			
G4-1	Statement from the most senior decision-maker	► Letter by the Chairman – p. 008	Not applicable	No
G4-2	Key impacts, risks and opportunities	► <u>G4-2 — p. 183</u>	Not applicable	Yes
Organization	al Profile			
G4-3	Name of the organization	SolarWorld AG	Not applicable	Yes
G4-4	Primary brands, products, services	► Glossary – p. 173 We are a vertically integrated company and occasionally fall back on tolling. Our logistics from factory gate to the customer are taken care of by service companies.	Not applicable	No
G4-5	Location of the organization's headquarters	Bonn, Germany	Not applicable	Yes
G4-6	Countries where the organization operates	► 2.3.3 Group structure – p. 126	Not applicable	Yes
G4-7	Nature of ownership and legal form	► Shareholder structure – p. 030	Not applicable	Yes
G4-8	Markets	► The market – p. 044 ► Strategy and action – p. 024	Not applicable	Yes
G4-9	Scale of organization	► Financial position – p. 075 ► Employees – p. 052	Not applicable	Yes
G4-10	Total workforce by employment type, employment contract and region	► <u>G4-10 — p. 220</u>	Not applicable	Yes
G4-11	Employees covered by collective bargaining agreements	► <u>G4-11 – p. 2031</u>	Not applicable	Yes
G4-12	Description of supply chain	► <u>G4-12 – p. 202</u>	Not applicable	Yes
G4-13	Significant changes in size, structure, supply chain or ownership	► 2.3 Basis of consolidation and group structure – p. 122	Not applicable	Yes
G4-14	Precautionary principle	► <u>G4-14 – p. 187</u>	Not applicable	No
G4-15	External agreements, principles or initiatives	► <u>G4-15 – p. 198</u>	Not applicable	Yes
G4-16	Association Memberships	► G4-16 – p. 196	Not applicable	Yes

G4 GRI Conte	ent Index			
General Stan	ndard Disclosures			
Standard	Description	Cross-reference/Direct answer	Omissions	External Assurance
Identified M	aterial Aspects and Boundaries			
G4-17	Organizational structure	► 2.3 Basis of consolidation and group structure – p. 122	Not applicable	Yes
G4-18	Process for defining report content	► <u>G4-18 – p. 184</u>	Not applicable	Yes
G4-19	Material Aspects which were identified in the process for defining report content	► <u>G4-19 – p. 185</u>	Not applicable	Yes
G4-20	Boundary within the organization	► <u>G4-20 – p. 185</u>	Not applicable	Yes
G4-21	Boundary outside the organization	► <u>G4-21 – p. 185</u>	Not applicable	Yes
G4-22	Restatement of information from earlier reports	► <u>G4-22 – p. 186</u>	Not applicable	Yes
G4-23	Changes in reporting scope, boundary or measuring methods	► <u>G4-23 – p. 186</u>	Not applicable	Yes
Stakeholder	Engagement			
G4-24	Stakeholder groups	► <u>G4-24 – p. 192</u>	Not applicable	Yes
G4-25	Identification and selection of stakeholders	► <u>G4-25 — p. 192</u>	Not applicable	Yes
G4-26	Engagement of stakeholders	► <u>G4-26 – p. 194</u>	Not applicable	Yes
G4-27	Key topics and concerns raised by stakeholders and reaction of the company	► <u>G4-27 – p. 194</u>	Not applicable	Yes
Report Profil	e			
G4-28	Reporting period	Calendar year 2014 (01/01/2014 – 12/31/2014) = business year 2014	Not applicable	Yes
G4-29	Date of last report, if applicable	Calendar year 2013 (01/01/2013 – 12/31/2013) = business year 2013	Not applicable	Yes
G4-30	Reporting cycle (annual, biennial, etc.)	Annual	Not applicable	Yes
G4-31	Contact for questions on report or its contents	Dr. Felicia Müller-Pelzer ► <u>sustainability@solarworld.com</u>	Not applicable	Yes
G4-32	GRI index	The present table ► <u>GRI Index – p. 257</u>	Not applicable	Yes
G4-33	External assurance	► <u>G4-33 – p. 187</u> ► <u>Confirmation – p. 270</u>	Not applicable	Yes

G4 GRI Conte	nt Index			
General Stand	lard Disclosures			_
Standard	Description	Cross-reference/Direct answer	Omissions	External Assurance
Governance				
G4-34	Governance structure of the organization	► The Management Board — p. 094	Not applicable	Yes
G4-35	Delegating authority	► <u>G4-35 – p. 190</u>		Yes
G4-36	Sustainability organization	► <u>G4-36 – p. 190</u>		Yes
G4-37	Processes for consultation between stakeholders and the highest governance bodies	► <u>G4-37 – p. 190</u>		Yes
G4-38	Details of unitary organization	Not applicable		Yes
G4-39	Declaration stating whether the Chairs of the highest governance bodies are also an Executive Officer	By definition, the Chief Executive Officer is part of the top management.		Yes
G4-40	Process for determining the composition, qualifications and expertise of the members of the highest governance bodies and its committees under consideration of diversity (gender and other indicators)	► <u>G4-40 – p. 189</u>		Yes
G4-41	Mechanisms for avoidance of conflicts of interest within the highest governance bodies	► <u>G4-41 – p. 189</u>		Yes
G4-42	Roles of the highest governance bodies and senior executives in developing organization's purpose	► <u>G4-42 – p. 190</u>		Yes
G4-43	Measures taken to enhance knowledge of the highest governance bodies on sustainability topic	► <u>G4-43 – p. 189</u>		Yes
G4-44	Procedures for evaluating the highest governance bodies' own sustainability performance	► <u>G4-44 – p. 190</u>		Yes
G4-45	Procedures of the highest governance bodies for overseeing sustainability performance	► <u>G4-45 – p. 190</u>		Yes
G4-46	Roles of the hightest governance bodies in risk management	► <u>G4-46 – p. 187</u>		Yes
G4-47	Review of impacts, risks and opportunities	► G4-47 – p. 187		Yes
G4-48	Formal review and approval of the sustainability reporting	► <u>G4-48 – p. 184</u>		Yes
G4-49	Process for communicating critical concerns	► G4-49 – p. 190		Yes
G4-50	Nature and total number of critical concerns	► G4-50 – p. 190		Yes
G4-51	Renumeration Policy for top management and relationship to sustainability performance	► <u>G4-51 – p. 247</u>		Yes
G4-52	Determining compensation	► G4-52 – p. 247		Yes
G4-53	Compensation policies	► <u>G4-53 – p. 247</u>		Yes
G4-54	Comparison of salaries	► <u>G4-54 – p. 247</u>		Yes
G4-55	Percentage comparison of salaries	► <u>G4-55 – p. 247</u>		Yes
Ethics and Int	egrity			
G4-56	Statements of mission, values, codes of conduct, principles as well as status of implementation	► <u>G4-56 – p. 191</u>	Not applicable	Yes
G4-57	Internal and external mechanisms for seeking advice on ethical and integrity matters	► <u>G4-57 – p. 191</u>		Yes
G4-58	Internal and external mechanism for reporting concerns on ethical and integrity matters	► <u>G4-58 – p. 191</u>		Yes
Disclosures or	n Management Approach (DMA)			
Standard	Description	Cross-reference/Direct answer	Omissions	External Assurance
G4-DMA	Management approach regarding the materiality aspects and themes	► <u>G4-DMA – p. 187</u>		Yes

G4 GRI Conte	nt Index			
Specific Stand	dard Disclosures	-		
Standard	Description	Cross-reference/Direct answer	Omissions	External Assurance
Economic		_		
G4-EC1	Direct economic value generated and distributed	► <u>G4-EC1 – p. 201</u>		Yes
G4-EC2	Financial implications due to climate change	► <u>G4-EC2 – p. 203</u>		Yes
G4-EC3	Coverage of organization's defined benefit plan obligations	► <u>G4-EC3 – p. 247</u>		Yes
G4-EC4	Financial assistance received from government	► <u>G4-EC4 – p. 201</u>		Yes
G4-EC5	Entry level wage compared to local minimum wage	► <u>G4-EC5 – p. 247</u>		Yes
G4-EC6	Locally based hiring of employees	► <u>G4-EC6 – p. 241</u>		Yes
G4-EC7	Infrastructure investments and services provided mainly for public benefit	► <u>G4-EC7 – p. 201</u>		Yes
G4-EC8	Indirect economic impacts	Not reported, not material		No
G4-EC9	Selection of locally based suppliers	► G4-EC9 – p. 202; The main locations are our production sites in Arnstadt, Freiberg and in Hillsboro. Accordingly, we define the EU and the U.S. as local markets (57 percent of procurement expenditures). The term "locally based" is defined in a way that is analogous to our segments (IAS 14). ► 15. Segment reporting – p. 146		Yes
Environment	al			
34-EN1	Materials used	► <u>G4-EN1 – p. 207</u>		Yes
G4-EN2	Recycling input materials	► <u>G4-EN2 – p. 207</u>		Yes
G4-EN3	Energy consumption within the organization	► <u>G4-EN3 – p. 209</u>		Yes
G4-EN4	Energy consumption outside of the organization	► G4-EN4 – p. 210		Yes
G4-EN5	Energy intensity	► <u>G4-EN5 – p. 210</u>		Yes
G4-EN6	Reduction of energy consumption	► <u>G4-EN6 – p. 210</u>		Yes
34-EN7	Initiatives for energy efficiency and renewable energy	► Global Supply Chain – p. 044 ► G4-EN7 – p. 210		Yes
34-EN8	Total water withdrawal	► <u>G4-EN8 – p. 210</u>		Yes
G4-EN9	Impact of water consumption	► <u>G4-EN9 – p. 210</u>		Yes
G4-EN10	Water recycled and reused	► <u>G4-EN10 — p. 210</u>		Yes
G4-EN11	Land in or adjescent to protected areas or areas of high biodiversity value	Not reported, not material		No
54-EN12	Impact on biodiversity	► <u>G4-EN12 – p. 216</u>		Yes
54-EN13	Habitats protected or restored	Not reported, not material		No
54-EN14	Threatened species	Not reported, not material		No
G4-EN15	Direct greenhouse gas emissions	► <u>G4-EN15 — p. 212</u>		Yes
G4-EN16	Indirect greenhouse gas emissions	► <u>G4-EN16 — p. 212</u>		Yes
G4-EN17	Other relevant greenhouse gas emissions	► G4-EN17 – p. 212		Yes
G4-EN18	Greenhouse gas emissions intensity	► G4-EN18 – p. 212		Yes
G4-EN19	Initiatives to reduce greenhouse gas emissions	► <u>G4-EN19 – p. 212</u>		Yes
G4-EN20	Emissions of ozone-depleting substances	► <u>G4-EN20 – p. 212</u>		Yes
54-EN21	$NO_{x}, SO_{x}$ and other significant air emissions	► G4-EN21 – p. 212		Yes
54-EN22	Total water discharge	► G4-EN22 – p. 211		Yes
54-EN23	Waste by type and disposal method	► G4-EN23 – p. 214		Yes
34-EN24	Significant spills	► <u>G4-EN24 – p. 216</u>		Yes
G4-EN25	Hazardous waste under Basel Convention	Not reported, not material		No

Specific Stand	lard Disclosures			
Standard	Description	Cross-reference/Direct answer	Omissions	External Assurance
G4-EN26	Impact of water discharges on biodiversity	Not reported, not material	-	No
G4-EN27	Initiatives to mitigate environmental impacts	► <u>G4-EN27 – p. 216</u>	No conclusive list of individual ini- tiatives; reason for improvement are diverse efficiency measures	Yes
G4-EN28	Packaging materials	► <u>G4-EN28 – p. 215</u>		Yes
G4-EN29	Sanctions for noncompliance with environmental laws and regulations	► <u>G4-EN29 — p. 207</u>		Yes
G4-EN30	Environmental impacts of transporting products	Not reported, not material		No
G4-EN31	Environmental protection expenditures	Not reported, not material		No
G4-EN32	Percentage of new suppliers that were screened using environmental criteria	Not reported, not material		No
G4-EN33	Significant actual and potential negative environmental impacts in the supply chain and actions taken	Not reported, not material		No
G4-EN34	Grievances about environmental impacts	► <u>G4-EN34 – p. 207</u>		Yes
Social				
G4-LA1	Attrition rate	► <u>G4-LA1 – p. 225</u>		Yes
G4-LA2	Benefits to full-time employees	► <u>G4-LA2 – p. 228</u>		Yes
G4-LA3	Return rate and retention rate after parental leave	► <u>G4-LA3 – p. 228</u>		Yes
G4-LA4	Minimum notice periods regarding significant operational changes	Not reported, not material		No
G4-LA5	Employees represented in worker health and safety committees	► <u>G4-LA5 – p. 232</u>		Yes
G4-LA6	Injuries, occupational diseases, lost days, absenteeism and work-related fatalities	► G4-LA6 – p. 232	Data protection: Occupational diseases can not be documented. In the U.S., sick leaves can not be documented.	Yes
G4-LA7	Counseling and training on serious diseases	► <u>G4-LA7 – p. 232</u>		Yes
G4-LA8	Health & safety topics covered in agreements with trade unions	Not material, topics of health and safety at the workplace are subject to co-determination (Works Council in Freiberg and Bonn). All of these agreements are signed by the company.  ► G4-LA8 – p. 232		Yes
G4-LA9	Initial and further training for employees	► <u>G4-LA9 – p. 239</u>	Trainings per employee in the U.S.	Yes
G4-LA10	Programs for skills management and life-long learning	Not reported, not material		No
G4-LA11	Performance and career development reviews for employees	Not reported, not material		No
G4-LA12	Diversity and equal opportunities	► <u>G4-LA12 – p. 241</u>		Yes
G4-LA13	Ratio of women's basic salary to men's	► <u>G4-LA13 – p. 247</u>		Yes
G4-LA14	Percentage of new suppliers that were screened using criteria for labor practices	► <u>G4-LA14 – p. 224</u>		Yes
G4-LA15	Significant actual and potential negative impacts for labor practices in the supply chain and actions taken	► <u>G4-LA15 – p. 224</u>		Yes

### **G4 GRI Content Index**

Specific Stand	dard Disclosures			
Standard	Description	Cross-reference/Direct answer	Omissions	External Assurance
G4-LA16	Number of grievances about labor practices filed, addressed, and resolved through formal grievance mechanisms	► <u>G4-LA16 – p. 224</u>		Yes
G4-HR1	Investment agreements	► <u>G4-HR1 – p. 252</u>		Yes
G4-HR2	Training on aspects of human rights	► <u>G4-HR2 – p. 252</u>		Yes
G4-HR3	Incidents of discrimination	► <u>G4-HR3 – p. 252</u>		Yes
G4-HR4	Freedom of association and collective bargaining	► <u>G4-HR4 – p. 252</u>		Yes
G4-HR5	Child labor	► <u>G4-HR5 – p. 252</u>		Yes
G4-HR6	Forced or compulsory labor	► <u>G4-HR6 – p. 252</u>		Yes
G4-HR7	Training of security personnel	► <u>G4-HR7 – p. 252</u>		Yes
G4-HR8	Violations of rights of indigenous people	► <u>G4-HR8 – p. 252</u>		Yes
G4-HR9	Processes that have been subject to studies and impact analysis regarding the respect for human rights	► <u>G4-HR9 – p. 252</u>		Yes
G4-HR10	Percentage of new suppliers that were screened using human rights criteria	► <u>G4-HR10 – p. 252</u>		Yes
G4-HR11	Significant actual and potential negative human rights impacts in the supply chain and actions taken	► <u>G4-HR11 – p. 252</u>		Yes
G4-HR12	Grievances about human rights impacts filed	► <u>G4-HR12 – p. 252</u>		Yes
G4-SO1	Impact on communities	► <u>G4-SO1 – p. 253</u>	••••••	Yes
G4-SO2	Negative impacts on local communities	► <u>G4-502 – p. 253</u>		Yes
G4-SO3	Corruption risks	► <u>G4-SO3 – p. 252</u>		Yes
G4-SO4	Training in anti-corruption policies	► <u>G4-SO4 – p. 252</u>		Yes
G4-SO5	Corruption incidents and action taken	► <u>G4-SO5 – p. 252</u>		Yes
G4-SO6	Contributions to political parties, politicians and related institutions	► <u>G4-506 – p. 252</u>		Yes
G4-SO7	Legal actions for anti-competitive behavior	► <u>G4-507 – p. 252</u>		Yes
G4-SO8	Sanctions for non-compliance with laws and regulations	► <u>G4-508 – p. 252</u>		Yes
G4-SO9	Percentage of new suppliers that were screened using criteria for impacts on society	► <u>G4-SO9 – p. 252</u>		Yes
G4-SO10	Significant actual and potential negative impacts on society in the supply chain and actions taken	► <u>G4-5010 – p. 252</u>		Yes
G4-SO11	Grievances about impacts on society	► <u>G4-SO11 – p. 252</u>		Yes

G4 GRI Conte	nt Index			
Specific Stand	dard Disclosures	-		
Standard	Description	Cross-reference/Direct answer	Omissions	External Assurance
G4-PR1	Impacts on customer health and safety	► <u>G4-PR1 – p. 250</u>	The evaluations of our service providers and customers (wholesalers, installers) are not available.	Yes
G4-PR2	Non-compliance with health and safety regulations	► <u>G4-PR2 – p. 250</u>		Yes
G4-PR3	Product information	► <u>G4-PR3 — p. 250</u>		Yes
G4-PR4	Non-compliance with standards concerning product labeling	► <u>G4-PR4 – p. 250</u>		Yes
G4-PR5	Customer satisfaction	► <u>G4-PR5 – p. 250</u>		Yes
G4-PR6	Standards related to advertising	► <u>G4-PR6 – p. 250</u>		Yes
G4-PR7	Non-compliance with marketing standards			Yes
G4-PR8	Breaches of customer data privacy	► <u>G4-PR8 – p. 250</u>		Yes
G4-PR9	Sanctions for noncompliance with product and service regulations	► <u>G4-PR9 – p. 250</u>		Yes
+	Confirmation	► Confirmation – p. 270		Yes
+	Sector Supplements	No appropriate sector supplements exist.		No

## **FURTHER INFORMATION**

# COMMUNICATION ON PROGRESS TO THE UN GLOBAL COMPACT

### GC ADVANCED LEVEL

This Communication on Progress includes the statement of Commitment to the Global Compact: ► <u>About this report</u> — <u>Sustainability</u> — <u>p. 006</u> the description of practical steps

to implement the ten Principles of the Global Compact in fiscal year 2014 as well as the measurement of outcomes based on application of the Global Reporting Initiative's performance indicators.

### **OVERVIEW OF THE COMMUNICATION ON PROGRESS (GLOBAL COMPACT)**

Issues	Principles of the Global Compact
Human Rights	Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights.  Principle 2: Businesses should make sure that they are not complicit in human rights abuses.
Labor	Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to free collective bargaining. Principle 4: Businesses should uphold the elimination of all forms of forced and compulsory labor. Principle 5: Businesses should uphold the effective abolition of child labor. Principle 6: Businesses should uphold the elimination of discrimination in respect of employment and occupation.
Environment	Principle 7: Businesses should support a precautionary approach to environmental challenges. Principle 8: Businesses should undertake initiatives to promote greater environmental responsibility. Principle 9: Businesses should encourage the development and diffusion of environmentally friendly technologies.
Anti-Corruption	Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

T 82	

Principles	Commitments: Quotations		
Principles 1, 2, 6	Guideline 1: "We stand for respect and equal opportunities."		
Principle 7	Guideline 2: "Our production is compatible with the protection of the environment using the best possible processes and product standards."		
Principle 7	Guideline 3: "We use existing resources responsibly and sparingly."		
Principles 1 and 2	Guideline 4: "We use state-of-the-art methods to avoid any health hazards and risks that may be caused by the SolarWorld group processes and products."		
Principle 10	Guideline 5: "Fair competition is the very basis of our business activities. Bribery and corruption are unlawful and not tolerated."		
Principles 1–10, especially Principles 4 and 5	Guideline 10: "We support the ten principles of the Global Compact of the United Nations and also demand compliance with it from our suppliers and business partners."		
Principles 1 and 2			
Principle 3	Code of Conduct: "SolarWorld upholds the freedom of association and respects the right to free collective bargaining."		
Principles 4 and 5	15 Code of Conduct: "Forced and child labor are strictly forbidden by law in most countries and worldwide at SolarWorld."		

Principles	Commitments: Quotations		
Principle 6	Code of Conduct: "Nobody, independent of his cultural, religious or personal background, shall be subjected to discrimination in the SolarWorld group."		
Principles 7 – 9	Code of Conduct: "The SolarWorld group devotes particular attention to protecting the environment. It is our declared aim to promote the protection of climate and resources in active ways. We therefore fully pledge to respect all applicable rules and international standards."		
Principle 10	Code of Conduct: "The SolarWorld group recognizes both the International Chamber of Commerce Rules of Conduct to Combat Extortion and Bribery in International Business Transactions published in 1999 and the OECD (Organisation for Economic Co-operation and Development) Anti-Bribery Convention of 1997. Please note that in connection with business activities, no unfair advantages, irrespective of whether in the form of cash or non-cash rewards, shall be offered or granted directly or indirectly either at home or abroad. Our operations are also subject to regulation by the antibribery laws of each country in which we operate, including the U.S Foreign Corrupt Practices Act and the UK Bribery Act. Vigilance is critical as we conduct increasingly more business globally. Increasing competitive pressures, both domestic and abroad, will not be permitted to undermine our commitment to ethical conduct and compliance with laws."		

Principles	Systems	Notes/Cross References
Principles 1–10	Values and guidelines	► <u>www.solarworld.de/values-and-guidelines</u>
Principles 1–10	Supplier Code of Conduct	► G4-56 – p. 191 ► G4-DMA – p. 187 ► www.solarworld.de/supplierscodeofconduct
Principles 1 and 2	Health & safety management	► <u>GRI Index – p. 257</u> ► <u>G4-LA5-8 – p. 232</u>
Principles 1 and 2	No use of private security forces by the SolarWorld group	
Principle 3	Guidelines and procedures do not favor individual associations or trade unions	► <u>G4-11 – p. 231</u> ► <u>G4-HR4 – p. 252</u>
Principle 3	Conditions permitting employees to exercise functions in associations or trade unions	► <u>G4-11 – p. 231</u> ► <u>G4-HR4 – p. 252</u>
Principle 4	Pay always exceeds the local minimum wage	Standard applies groupwide
Principle 4	Maximum regular working week is 40 hours, with incremental pay for overtime	Standard applies groupwide (in the U.S., no formal fringe benefits)
Principle 5	Minimum working age is respected, including when selecting suppliers	Minimum age 15 years (cf. ILO Convention 138(7)) or higher local minimum age groupwide standard
Principle 6	Standards enshrined in the German Equality Act (AGG) are applied	Standard applies groupwide (on a voluntary basis)
Principles 7–7, 9	Environmental management	► <u>G4-DMA – p. 187</u> ► <u>G4-EN1-34 – p. 206</u>
Principles 1–10	High legal standards in Germany and the United States	► G4-EN21 – p. 212 ► G4-EN28 – p. 215 ► G4-LA6 – p. 232 ► G4-HR4 – p. 252 ► G4-PR3+6+9 – p. 250
Principle 10	Compliance Management System	► <u>G4-56 – p. 191</u>

T 84

Measures in 2014	Notes/Cross References
Continuation of the Compliance Management System	► <u>G4-56 – p. 191</u>
Continuation of the whistleblower system SolarWorld SpeakUp	► <u>G4-56 – p. 191</u>
Sustainable group governance	► <u>G4-56 – p. 191</u>
Agreements with trade unions	► <u>G4-11 – p. 231</u> ► <u>G4-HR5 – p. 252</u>
Life Cycle Analysis	► Environmental commitment – p. 049
Precautionary principle	► <u>G4-14 – p. 187</u>
PR activities to raise awareness	► <u>Global Supply Chain – p. 044</u> ► <u>G4-PR6 – p. 250</u>
Continuous, because our business is exclusively solar energy	► <u>www.solarworld.de/vision</u>
Technical innovations in research and development (purely solar group)	► <u>Goals and strategy – p. 024</u>
Solar2World projects	► <u>G</u> 4-EC7 – p. 201
	Continuation of the whistleblower system SolarWorld SpeakUp Sustainable group governance Agreements with trade unions Life Cycle Analysis Precautionary principle PR activities to raise awareness Continuous, because our business is exclusively solar energy Technical innovations in research and development (purely solar group)

Principles	Performance (see GRI Performance Indicators)	Notes/Cross References	
Principle 1	Subcategory: Human rights (all aspects) Subcategory: Society – local communities	► <u>G4-DMA – S. 187</u> ► <u>G4-HR1-12 – S. 252</u> ► <u>G4-S01-2 – S. 253</u>	
Principle 2	Subcategory: Human rights (all aspects)	► <u>G4-DMA – S. 187</u> ► <u>G4-HR1-12 – S. 252</u> ► <u>G4-S01-2 – S. 253</u>	
Principle 3	Category: Labor practices and decent work conditions – labor/management relations Subcategory: Human rights – freedom of association and collective bargaining	► <u>G4-DMA – S. 187</u> ► <u>G4-11 – S. 231</u> ► <u>G4-LA5 – S. 232</u>	
Principle 4	Subcategory: Human rights – forced or compulsory labor	► <u>G4-DMA – S. 187</u> ► <u>G4-HR6 – S. 252</u>	
Principle 5	Subcategory: Human rights – child labor	► <u>G4-DMA – S. 187</u> ► <u>G4-HR5 – S. 252</u>	
Principle 6	Subcategory: Labor practices and decent work conditions (all aspects) Subcategory: Human rights – non-discrimination	► G4-DMA – 5. 187 ► G4-10 – 5. 220 ► G4-LA1-16 – 5. 220 ► G4-HR3 – 5. 252	
Principle 7	Category: Environment (all aspects)	► <u>G4-DMA – S. 187</u> ► <u>G4-EN1-28 – S. 206</u>	
Principle 8	Category: Environment (all aspects)	► <u>G4-DMA – 5. 187</u> ► <u>G4-EN1-28 – 5. 206</u>	
Principle 9	Category: Environment (all aspects)	► <u>G4-DMA – S. 187</u> ► <u>G4-EN1-28 – S. 206</u>	
Principle 10	Subcategory: Society – anti-corruption Subcategory: Society – public policy	► G4-DMA – S. 187 ► G4-S03-5 – S. 252 ► G4-S06 – S. 252	

	Criterion	Notes/Cross-references
1	Mainstreaming into corporate functions and business units	SolarWorld's management determines the strategy and is responsible for its implementation in keeping with the principles of the Global Compact. The Management Board supervises its implementation.  ► G4-DMA – p. 187 ► Corporate Management and Control – p. 026
2	Value chain implementation	SolarWorld has a Supplier Code of Conduct. The Supplier Code of Conduct requires our business partners to comply with all applicable environmental and social legislation, rules and standards and to operate an efficient system to identify and eliminate potential hazards. In addition, our suppliers are encouraged to make their contractors and other business partners comply with these standards, too. • <u>G4-56 – p. 191</u> Supplier audits are carried out at regular intervals. We assess the suppliers along our five dimensions (commercial criteria, quality, technology, logistics and sustainability).
3	Robust commitments, strategies or policies in the area of human rights	In its Code of Conduct, SolarWorld explicitly refers to Principles of the Global Compact. The Supplier Code of Conduct also deals with the protection of human rights. $\blacktriangleright$ $\underline{G4-56-p}$ . $\underline{191}$ In particular, the members of the Management Board, managing directors and other executives are responsible for compliance with the requirements.
4	Effective management systems to integrate the human rights principles	SolarWorld operates a compliance management system. As compliance training in 2014 focused on the main risks in the group, it was not possible to cover this subject. However, it is due for inclusion in future basic training courses. This topic is particularly significant in supplier management. Information and complaints relating to integrity can be submitted via the relevant channels within SolarWorld (e. g. Compliance Officers) or anonymously via SolarWorld SpeakUp.
5	Effective monitoring and evaluation mechanisms of human rights integration	Monitoring and evaluation are carried out via the internal points of contact (e.g. Compliance Officers) and via SolarWorld SpeakUp.
6	Robust commitments, strategies or policies in the area of labor	In its Code of Conduct, SolarWorld explicitly refers to Principles of the Global Compact. Labor is also dealt with in the Supplier Code of Conduct. $\blacktriangleright$ <u>G4-56 – p. 191</u> In particular, the members of the Management Board, managing directors and other executives are responsible for compliance with the requirements.
7	Effective management systems to integrate the labor principles	The human resources department ensures compliance with labor standards in the group. This is also a particularly significant consideration in supplier management. Information and complaints relating to integrity can be submitted via the relevant channels within SolarWorld (e.g. Compliance Officers) or anonymously via SolarWorld SpeakUp.
8	Effective monitoring and evaluation mechanisms of labor principles integration	Monitoring and evaluation are carried out via the internal points of contact (e.g. Compliance Officers) and via SolarWorld SpeakUp.
9	Robust commitments, strategies or policies in the area of environmental stewardship.	In its Code of Conduct, SolarWorld explicitly refers to Principles of the Global Compact. Environmental protection is also dealt with in the Supplier Code of Conduct. ► <u>G4-56 – p. 191</u> A groupwide QHSE (Quality, Health, Safety & Environment) corporate policy also exists. In particular, the members of the Management Board, managing directors and other executives are responsible for compliance with the requirements.

10	Effective management systems to integrate the environmental principles.	SolarWorld is ISO 14001 certified. In addition to the environmental management system, local "Green Teams" exist in which employees take action for sustainability. Information and complaints relating to the theme of integrity can be directed to internal points of contact within SolarWorld (e.g. Compliance Officers) as well as anonymously via SolarWorld SpeakUp.
11	Effective monitoring and evaluation mechanisms for environmental stewardship	Monitoring and evaluation are carried out via the internal points of contact (e. g. Compliance Officers) and via SolarWorld SpeakUp.
12	Robust commitments, strategies or policies in the area of anticorruption	In its Code of Conduct, SolarWorld explicitly refers to the Principles of the Global Compact. Anti-corruption is also dealt with in the Supplier Code of Conduct. $\blacktriangleright$ <u>G4-56 – p. 191</u> In particular, the members of the Management Board, managing directors and other executives are responsible for compliance with the requirements.
13	Effective management systems to integrate the anti-corruption principle	SolarWorld has implemented a Compliance Management System. In 2014 compliance trainings for our managers and Compliance Officers took place, during which the topic anti-trust was one major topic. Information and complaints relating to the theme of integrity can be directed to internal points of contacts (e.g. Compliance Officers) within SolarWorld as well as to SolarWorld SpeakUp.
14	Effective monitoring and evaluation mechanisms for the integration of anti-corruption	Monitoring and evaluation are carried out via the internal points of contact (e.g. Compliance Officers) and via SolarWorld SpeakUp.
15	Actions taken in support of broader UN goals and issues	SolarWorld has designed its corporate strategy and operational processes to step up its contribution to the Global Compact principles. $\blacktriangleright$ $\underline{G4-56-p.191}$ SolarWorld also implements projects that support the UN goals and issues, in collaboration with NGOs and charitable institutions. $\blacktriangleright$ $\underline{G4-EC7-p.201}$
16	Strategic social investments and philanthropy	Under the umbrella Solar2World, SolarWorld implements solar electrification projects in developing countries. ► <u>G4-EC7 – p. 201</u>
17	Advocacy and public policy engagement	SolarWorld conducts lobbying work in order to help solar energy become competitive, and is an advocate of political funding programs. $\blacktriangleright$ <u>G4-S06 – p. 252</u>
18	Partnerships and collective action	SolarWorld also implements projects that support the UN goals and issues, in collaboration with NGOs and charitable institutions. $\blacktriangleright$ $G4$ - $EC7$ - $D$ . 201
19	CEO commitment and leadership	► <u>About this report – Sustainability – p. 006</u>
20	Discussion of strategic aspects of the Global Compact at the Management Board level	The Board oversees the sustainability performance of the group. $\blacktriangleright$ <u>G4-56 – p. 191</u> The main opportunities and risks in the short and medium term are disclosed. $\blacktriangleright$ <u>Group management report forecast – p. 065</u>
21	Engagement with all important stakeholders	SolarWorld explains the stakeholder analysis, including the stakeholder summary and process of stakeholder identification and integration. $\blacktriangleright$ <u>G4-24-27 – p. 192</u>

# APPENDIX: MATERIALITY ANALYSIS – ASSESSMENT OF ALL ASPECTS AND THEMES

### **ASSESSMENT OF ALL ASPECTS AND THEMES**

Aspects/Themes	Total Stakeholder	Total SolarWorld
Provinces and delicated absorbs and	2.6	3.3
Business model and strategy		
Corporate management and control	2.7	2.4
Macroeconomic influences	3.8	2.1
Solar market development	5.5	4.7
Economic indicators	3.2	4.9
Market presence	3.5	3.3
Business forecast	2.4	5.0
Opportunity and risk management system	1.9	1.5
Concrete opportunities	3.0	3.3
Concrete risks	1.6	3.3
Customer health and safety	1.8	1.5
Products and services	3.2	3.4
Marketing and communications	2.1	2.1
Protection of customer data	1.3	0.9
Innovation	3.6	3.6
Environmental impacts	1.4	1.8
Material	2.8	1.9
Energy	2.3	1.6
Water	2.3	1.1
Biodiversity	1.0	0.8
Transportation	2.1	1.4
Waste, waste water, emissions	2.0	1.7
Expenditure for environmental protection	1.4	1.5
Employment relationship	3.5	2.7

Aspects/Themes	Total Stakeholder	Total SolarWorld
Employee-employer-relationship	2.1	1.6
Health and safety	1.3	1.8
Training and development	1.4	1.4
Diversity, equal opportunities and equal pay	2.2	1.2
Freedom for association and collective bargaining	2.1	1.1
Child and forced labor	0.6	0.6
Age structure	1.0	1.2
Cost of relocation of jobs	1.0	1.6
Dependency from suppliers	2.8	2.2
Procurement practices	2.8	2.6
Supplier rating	1.6	1.3
Investments	2.6	4.1
Security provisions regarding human rights	1.3	1.0
Rights of indigenous people	0.6	0.7
Assessment of the company regarding human rights	1.4	1.0
Local communities	1.0	1.9
Indirect economic impacts	0.8	1.8
Corporate Governance	1.7	2.3
Compliance - environmental aspects	2.1	2.1
Compliance - anti-corruption	1.9	2.2
Compliance - political behavior	2.0	2.3
Compliance - fair competition	1.8	3.3
Grievance mechanisms	1.8	1.1

# CONFIRMATION FOR THE SECTIONS "COMPANY PROFILE AND REPORT CONTENTS" AND "PERFORMANCE INDICATORS" OF THE REPORT SEGMENT "SUSTAINABILITY IN DETAIL 2014" OF SOLARWORLD AG, BONN, FOR THE CALENDAR YEAR 2014

### To SolarWorld AG, Bonn

We have subjected the sections "Company profile and report contents", as well as "Performance indicators" of the report segment "Sustainability in detail 2014" of SolarWorld AG, Bonn, to a review by an auditor. The segment covers the period from January 1, 2014 to December 31, 2014. The segment "Sustainability in detail 2014" was prepared in accordance with the criteria specified on page 184 of the segment (basic principles of the Global Reporting Initiative [GRI]).

The Management Board of SolarWorld AG is responsible for preparing the sections. Our task is to provide a certification for the sections "Company profile and report contents" and "Performance indicators" of the report segment "Sustainability in detail 2014" on the basis of our auditor review.

We conducted the auditor review of the sections "Company profile and report contents" and "Performance indicators" of the report segment "Sustainability in detail 2014" in accordance with the generally accepted German standards for auditing sustainability reports established by the Institut der Wirtschaftsprüfer in Deutschland e.V. [Institute of Public Auditors in Germany, Incorporated Association] (IDW). According to these standards, the audit review must be planned and carried out in such a way that we can rule out with limited assurance, through critical appraisal of the facts, that the report sections materially differ from the underlying criteria. An auditor review is limited primarily to making inquiries of company personnel and analytical judgments and thus does not provide the certainty achievable through an audit of financial statements.

Based on our auditor review, no facts have come to our attention which would lead us to believe that the sections "Company profile and report contents" and "Performance indicators" of the report segment "Sustainability in detail 2014" were not prepared in all material respects in accordance with the underlying criteria.

Bonn, March 25, 2015

BDO AG Wirtschaftsprüfungsgesellschaft

**Lubitz**Auditor

**Ahrend** Auditor

### **ABBREVIATIONS SUSTAINABLITY**

**KPNs** – Key Performance Narratives

**kWh** – Kilowatt hours

	L
C,H, – Ethylen	<b>LA</b> – Labor
CDP – Carbon Disclosure Project	
<b>CFC</b> <sub>11ea</sub> – Trichlorfluormethan equivalent	M
CH, COOH – Acetic acid	<b>MJ</b> – Megajoule
CNF – Commission on Non-Financials	MJ <sub>ea</sub> – Megajoule equivalent
<b>CO<sub>2ea</sub></b> – Carbon dioxide equivalent	eq 0 3 - 1
zey	<b>MWh</b> – Megawatt hours
D	<u> </u>
<b>DVFA</b> – Deutsche Vereinigung für Finanzanalyse und	N
Asset Management	<b>N<sub>2</sub>O</b> – Nitrous oxide
<b>DB</b> <sub>ea</sub> – Dichlorbenzene equivalent	NaOH – sodium hydroxide
· ·	<b>NGOs</b> – Non-Governmental Organizations
E	NH <sub>3</sub> – ammonia
<b>EC</b> – Economy	<b>NO<sub>x</sub></b> – Nitrogen oxides
<b>EFFAS</b> – European Federation of Financial Analysts Societies	<del>.</del> -
<b>EN</b> – Environment	P
<b>EPIA</b> – European Photovoltaic Industry Association	<b>Pb</b> – Lead
<b>ESG</b> – Environmental, Social, Governance	<b>POCI</b> <sub>3</sub> – Phosphorous oxychloride
	<b>PR</b> – Product Responsibility
G	PO <sub>4ea</sub> – Phosphate ion equivalent
<b>GHG</b> – Greenhouse Gas	4eq
<b>GRI</b> – Global Reporting Initiative	Q
	QHSE – Quality, Health, Safety and Environment
Н	<b>QST</b> – Qatar Solar Technologies
H <sub>2</sub> SO <sub>4</sub> – Sulfuric acid	Ţ
<b>HCI</b> – Hydrochloric acid	R
<b>HF</b> – Hydrogen fluoride	<b>R&amp;D</b> – Research & Development
HNO <sub>3</sub> – Nitric acid	·
<b>HR</b> – Human Resources	S
	<b>Sb</b> <sub>ea</sub> – Antimony equivalent
	SEIA – Solar Energy Industries Association
IDW – Institut der Wirtschaftsprüfer	<b>SiH</b> <sub>4</sub> – Silane
IEA – International Energy Agency	<b>SO</b> <sub>2ea</sub> – Sulphur dioxide equivalent
ILO – International Labour Organization	SO <sub>v</sub> – Sulphur oxides
ISAE – International Standards on Assurance Engagement	SVTC – Solar Valley Toxics Coalition
IPCC – Intergovernmental Panel on Climate Change	•
ISO – International Organization for Standardization	T
	TCO <sub>2ea</sub> – Tons of carbon dioxide equivalent
K	-cuy '
<b>KOH</b> – potassium hydroxide	W
KPIs – Key Performance Indicators	<b>WEEE</b> – Waste Electrical and Electronic Equipment
KDN K D C	*** *** !

**Wp** – Wattpeak

### **IMPRINT**

### **CONCEPT AND DESIGN**

heureka GmbH, Essen ► <u>www.heureka.de</u>

### **PHOTOS**

Armin Froitzheim, Frank Grätz, Peter Keil, Marcus Müller-Saran, Holger Rauner, Hagen Willsch, plainpicture/OJO

### **PRINTED BY**

Druckpartner, Essen ► <u>www.druck-partner.de</u>

### **PAPER**

RecyStar® Polar (300, 150, 115 g/sqm)

This report is also available in German. PDF files can be found on our webpage at ► <u>www.solarworld.de/financial-reports</u>

### CONTACT OUR TEAM:

SolarWorld AG Investor Relations Martin-Luther-King-Straße 24 53175 Bonn, Germany

Phone + 49 288 55920-470 Fax + 49 288 55920-9470

placement@solarworld.com www.solarworld.com